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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND FOR ALL INTERESTED IN THE CONSTRUCTIVE & DECORATIVE ARTS

VOL. CIII.—No. 3829. AUGUST 23, 1912.

ILLUSTRATIONS.

SKETCHES WITH THE ARCHITECTURAL ASSOCIATION ANNUAL EXCURSION. BY MR. SUTTON WOOD.

ILLUSTRATIONS IN TEXT.

PAGE

THE ARCHITECTURAL ASSOCIATION ANNUAL EXCURSION: SHROPSHIRE:—
SKETCHES OF ECCLESIASTIC WORK AT BATTLEFIELD, SHIFNAL, AND TONG CHURCHES 225, 226
SKETCHES OF DOMESTIC WORK AT PRESTON BROCKHURST, MORETON CORBET, MADELEY COURT, PLAISH HALL, AND SHREWSBURY 224, 225, 227, 228

MONTHLY REVIEW OF ENGINEERING:—
THE LONDON AND SOUTH-WESTERN BANK, GRAC..CHURCH-STREET, E.C. MR. H. E. GABRIEL, ARCHITECT: VIEWS OF THE EXTERIOR AND INTERIOR 233-235
INTERLOCKING REINFORCED SLABS ..... 235, 2'6

CONTENTS.

	PAGE
COSMOPOLITANISM AND ARCHITECTURE	221
LEGISLATION AND THE EXPORTATION OF WORKS OF ART	222
NOTES	223
ARCHITECTURAL ASSOCIATION FORTY-THIRD ANNUAL EXCURSION, AUGUST 12 TO 17: SHREWSBURY AND DISTRICT	224
THE SUMMER SCHOOL OF TOWN PLANNING AT HAMPSTEAD GARDEN SUBURB.—II.	229
GENERAL NEWS	231
CORRESPONDENCE	231
NOTES TO ILLUSTRATIONS	232
MEETING	232
COMPETITION NEWS	232
MAGAZINES AND REVIEWS	232
FIFTY YEARS AGO	232
MONTHLY REVIEW OF ENGINEERING:—	
THE HEAD OFFICE OF THE LONDON AND SOUTH-WESTERN BANK	233
DANGERS ATTENDING DEEP EXCAVATION	234
NEW YORK SEWAGE DISPOSAL	235
INTERLOCKING REINFORCED SLABS	235
NOTES	236
THE BUILDING TRADE:—	
THE INSURANCE ACT	237
GOVERNMENT CONTRACTS	237
A TRADE CONVENTION	237
GENERAL BUILDING NEWS	238
THE BUILDING TRADE (*contd.*):—	
APPLICATIONS UNDER LONDON BUILDING ACTS, 1894 TO 1909	238
PROJECTED NEW BUILDINGS IN THE PROVINCES	239
LONDON COUNCILS	239
THE ROYAL SANITARY INSTITUTE: CONGRESS AT YORK	240
LEGAL COLUMN	241
OBITUARY	241
FOREIGN AND COLONIAL	241
PATENTS	241
LIST OF COMPETITIONS, CONTRACTS, ETC., OPEN	242
SOME RECENT SALES	244
PRICES CURRENT	244
TENDERS	2 6

COSMOPOLITANISM AND ARCHITECTURE.

THE present is an age of intercommunication with closely-woven yet far-extended interests, of a pattern so complex that it is difficult to unravel a sequence of events so as to determine how much appertains only to ourselves as distinct and separate from what is rightly the contribution of others.

To attempt to trace out the causes which have helped to shape a Nation's Art is always interesting and instructive. Man is an imitative animal, and, while he accepts in a great measure the example of those who have preceded him, he is always open to other influences which modify and direct his works. Tradition, with all that the word signifies, is only one of the causes which go to the formation of Architecture.

In the small and isolated communities of the Middle Ages local interests were of paramount importance, and inherited ideas were the main source of inspiration. The secrets of a handicraft or trade were passed on from father to son; allowing for the personal factor, which, although it shapes, is not only to a large extent absorbed in the work of the period which it helps to produce, but is also, in a great measure, responsible for its distinctive character. We can see in the results a continuity of effect such as no other process could give. Mediæval art was the result of the conditions under which those who produced it lived—conditions which were constantly changing and at last ceased to exist.

In the freer life of the Renaissance there is apparent a broadening of boundaries, and with a fuller knowledge; a breaking down of the old local customs; travel and communication with other countries resulted in an exchange of thought, which directly affected the art of the time. It is to be doubted if architecture ever has been a purely parochial or national affair. Even in Gothic periods there appears to have been an interchange of ideas, a reflection of the art of one country in the works of another, and from the end of the XVIth century up to the present day this influence has become more manifest.

All countries have, at one period or another, borrowed from their neighbours, and though, for the most part, these borrowings have been marked by a transition of form which has modified and rendered the adaptation to a large extent national, the sources of their inspiration can, in most cases, be definitely traced, and in a great measure this very quality has been due more to an imperfect comprehension than to any particular desire of the artist to achieve a definite style. The point is that what is peculiar to the art of a country, even when derived through foreign channels, is the result of a natural process and cannot be attained by any conscious striving. What is national in the best sense comes unconsciously, as it were, in spite of ourselves; it is an intangible manifestation of our collective character which escapes all attempt at limitation or direction.

The question as to whether in our effort to build up a great city on a public architecture the study of foreign styles is to be rejected or pursued has of late become a subject of anxious inquiry; the dreadful fear of becoming un-English, of losing our national inheritance, would appear to some to be the grounds for seeking a salvation in a splendid isolation.

To be ignorant of our own history is not a good preparation for the sympathetic understanding of the history of other people; while to shut ourselves definitely off from all outside influence is not only in these days impossible in point of fact, but would be productive of a barrenness inimicable to that broad culture which is the best preparation for the study of the arts. Of architecture in particular, it may be said that it has always depended for vitality and continuity on the constant absorption of new ideas.

To-day increased facilities for travel, the multiplication of fine books, and the art of the camera have made us familiar with life in its various aspects in all parts of the world. In commerce and finance our interests may be described as international; in habits and modes of living we tend to become more cosmopolitan—

a change of life, the result of which is becoming increasingly apparent in our buildings.

Now this cosmopolitan aspect of art is not without its dangers. To admire what is best in European or American architecture, and to seek to reproduce it, is not only natural, but almost inevitable; the danger lies in a superficiality of appreciation, the skimming of the cream from the surface, without any attempt to understand the underlying root-principles.

Enthusiasm alone with no faculty for penetrative criticism can only be productive of the most unfortunate results. The untrained mind is always open to attraction by extravagances and non-essentials; the real essence of a movement nearly always escapes it; the undisciplined are always the first to follow the passing fashion of the hour. A great deal of the best European and American architecture is based on a common classical inheritance, and to be well grounded in the fundamentals of this is the best preparation for that complete understanding which accepts only what is most necessary to growth and development.

To be academic in the broad meaning of the word is to have a standard by which all is tried; it is to be able to determine what is of real and lasting importance as distinct from that which is only temporary and evanescent. Several of the most recent large buildings in London show a strong French influence; in fact, some of the best of them are directly due to the inspiration of France, that land of Academies, pregnant with the spirit of critical discrimination. Such work at its best will stand the test of time, but contemporary with it there is unfortunately much that, masquerading under the same cloak, is trivial and meaningless, that has no depth or permanence and has very little real intrinsic value.

Ever since the waning of the Gothic revival we have had a continuous succession of styles derived from English and Continental models alike, all held up as examples for our instruction and imitation. Judging by recent indications, we are about to surrender ourselves to the sway of America.

Amidst all the confusion caused by our haphazard method of choosing our different models it is difficult to find any logical sequence in their acceptance or rejection. We have passed from one to another without apparently any greater reason than that dictated by the whim of the moment, the mode set by some particular exponent, or the opportune publication of some important book. To make things worse, we have not always based our work on the best examples. Ignorance, the brother of opportunism, has helped to plunge us deeper into the mire. We do not learn French or German in order to forget our English, but in order to enlarge our ideas; not that we may sprinkle our conversation with appropriate gleanings from other tongues, but that we may be richer in a fuller knowledge of their literature.

So with architecture, what we study we need to assimilate; seeking after what is the best we must wrest from it what is most essential to our needs. We must dig deep down to the base of things; experience prepared by education is the true path of learning.

It must be remembered that our building exploits are now judged by the whole world, that we now act on a wider stage and to a larger and more critical audience than we have ever before been called upon to face. No sooner is a building erected in London than the elements of its design are known in Paris and New York. That is to say, if the design and construction are likely to interest our brothers in Paris and New York. A greater publicity entails a greater responsibility; what was good enough for the village years ago will not pass in the metropolis to-day, much less in that extended circle that now demands our attention.

As cosmopolitanism in life affects our manners and mode of living, so in art some adjustment of prevailing standards is necessary. Not less, but more, is required of us, and indications are not wanting that we are alive to this, and are seriously preparing ourselves for our fuller opportunities, that a future rich in promise may also be one of fruition and fulfilment.

LEGISLATION AND THE EXPORTATION OF WORKS OF ART.

FROM time to time alarms are raised in the Press because some valuable antiquity is on the point of being sold to America. Whether it be picture, fireplaces, or panelling, or, indeed, a whole antique fabric, the same resentment is expressed against the seller for doing on a great scale what we all do on a small one. And it has been suggested that legislation is necessary and right to prevent the continuance of what bids fair to become an extensive form of traffic. Until recently prohibitive tariffs prevented a too great indulgence in this buying of pictures and other priceless things for importation into the United States. These tariffs are removed, and a great barrier is thus laid low which formerly proved practically impenetrable.

Legislation to-day prevents the exportation of objects of art from Italy. Can legislation be devised on similar lines for us? There is a marked difference, however, in the position of the two countries with regard to works of art. Italy claims the work as indigenous, whilst we can make no stand, on patriotic grounds at least, to prevent the sale of such pictures as have been the cause lately of much heartburning. For before the advent of the "almighty dollar" was not the British guinea all-powerful for two centuries or so? The majority of our pictures came from Italy, where they were purchased by amateurs and dilettanti.

Can it, with any justice, be forbidden their present owners, by purchase or inheritance, to sell them to the highest bidder? We think not, not in equity, not on patriotic grounds, for we have no national right in them.

The case is different, however, with indigenous works of art — painting, architecture, and suchlike. Our cathedrals cannot be bodily removed to America, nor their priceless contents of monuments and stained glass, nor any of the various fitments they possess. Our old houses, too, are almost as safe. A mantelpiece or some old panelling may go, but does that really matter? We allow our precious cathedrals to be restored out of recognition, or take no care of other, no less important, legacies of the centuries, and it is only when some art dealer attempts to negotiate a sale with some American millionaire that any outcry is made.

The truth is, it is only a matter of price. We allow our paintings by Reynolds, Gainsborough, and Romney to change hands how they like, and when they like, because, forsooth, it is a matter of a few thousand pounds. The things in which we have some national right, things which belong like steps in the ladder of our evolution, may be sold where they will. Patriotism will make out a better case for not allowing these national treasures to be taken away. And when patriotism does awaken out of its sloth and sees with opened eyes the beauty of its heritage, it will find means to keep them. In the meantime the sale will go on, and so long will art in this country languish. For there is no more absurd or foolish belief than that art died long ago, and, judging from the lack of encouragement it receives to-day, we must assume it to be general. Even in Solomon's time there were people who regretted the good old days!

It is the easiest matter in the world to learn the names of some of the giants in art, and to unlimited wealth, as easy to acquire examples of their work as it is for lesser means to purchase copies or reproductions of them.

There is no criterion beyond a name or a fabulous price. There is a noble picture in the Glasgow Corporation Galleries attributed to Giorgione, entitled "Christ and the Woman Taken in Adultery." The faltering of the woman, the gentle attitude of Christ, the self-satisfied looks of the witnessing Pharisees are combined in a faultless composition. A certain Venetian sumptuousness gives colour and suavity to the draperies of the figures, and out behind them is a view of green hills dotted with sheep, ineffably peaceful and beautiful. Now the picture, being one whose authenticity is doubtful, it is valued at a fraction of the amount it could be sold for if the judges unanimously considered it to be by Giorgione. It is the lack of a name which deprives it of its value—not its real value, for no artist we have ever talked to about this picture but thought it one of the great achievements of art, but the fictitious one of price.

No more feeble subterfuge is possible than to deprecate modern art, nothing more likely to stifle what, after all, is an extremely sensitive plant. It does not flourish in the mind of calumny, but weeds spring up, gross and foul, which are mistaken by the ignorant for flowers. Comparisons should not be instituted between old or modern art any more than between Greek and Gothic architecture. Their aims are different, but who will say whether the brilliance of Manet is less beautiful than

the solemnity and dignity of Titian. When art becomes a vital thing, a thing which is part and parcel of life, legislation will be unnecessary to keep art treasures in any country.

NOTES.

The New British School at Rome.

We are glad to learn from the publication of particulars of the competitions to be inaugurated in connexion with the newly-founded Scholarship in Architecture at Rome that this important scheme is a step nearer realisation. Scholarships of the value of 200*l.* per annum and tenable for three years will be awarded in architecture, painting, and sculpture. In architecture the award will be made on the result of a series of tests or competitions conducted as regards the final competition *en loge*, in London, on lines very similar to those favoured for many years past by the Beaux-Arts in Paris. Details of the open qualifying examination will be announced in the autumn of this year. The first competition will be held in the spring of next year and the final competition for the selection of the first "Scholar" in the following autumn. The scheme promises to have such a wide and wholesome influence on the question of architectural education —and consequently of the raising of the standard of architectural design and the status of the architect in this country—that we hope to dwell upon it from time to time, and in a forthcoming issue to give fuller information than space allows now. We note, however, that it is the intention of the authorities to make special arrangements whereby the subjects of design for the first stage of the competition will be made known so as "to enable students in the Dominions to have the same time for the preparation of their designs as the students at home." We are further able to announce that the Jarvis Studentship, which will also be worth 200*l.* per annum, but be tenable for two years only, will be awarded on the results of the same competition. Whereas the "Scholarship" will be open to any British subject under the age of thirty years, the "Jarvis" will be limited to students and Associates of the Royal Institute of British Architects under the same age limit.

National Art Training.

The question of State-aided art training is in the air once more. In an address on that subject, delivered at the annual meeting of the National Society of Art Masters, Mr. Reginald Blomfield, P.R.I.B.A., A.R.A., spoke very plainly of the failure of that training, which he attributed partly to general conditions unfavourable to art and partly to want of clear and single purpose in the State art schools. Since then the *Times* has published two letters from Mr. Alan S. Cole and Mr. Walter Crane respectively, the first criticising the accuracy of statistics upon which dissatisfaction with the schools is based, the latter pointing to the high quality of work produced in the schools and the enormous progress made therein in recent years. We do not question the correctness of the statements and the soundness of the views expressed in these letters; and yet we think they do not touch the substantial justice of Mr. Blomfield's criticism. The remedies suggested by him also are all for good, so far as they go. No doubt if the production of really competent artists and craftsmen be the object of national art training much might be done by the Education Board in the way of making the present system of art schools more efficient to that end, and to the elimination of the unfit and the amateur. But we feel this only touches one part of the question. It does nothing for the general art education of those whose interest therein is receptive rather than executive, or for the arousal of that public æsthetic interest which is so necessary if the true artist and craftsman, when trained, is to find appreciation of his work—and a living. The real trouble now is in the "general conditions unfavourable to art," as one result of which art is regarded as a costly exotic, a luxury for the wealthy connoisseur and collector rather than as a normal condition of completely healthy life in industry. The problem is to reintegrate æsthetic and utilitarian values in their right relation, judged by a higher standard than pecuniary value. It is in fact the great problem of the co-ordination and correspondence of all education, and of art, with industry, and that problem can only be practically approached gradually and from many different standpoints.

Immediate Steps Possible.

In addition to the improvement of the schools on lines suggested by Mr. Blomfield, we suggest other immediate steps might be taken in the direction of attracting and encouraging the right students and of awakening public interest in the work being done in the schools, to which so highly competent a judge as Mr. Walter Crane gives such high praise. What prevents the annual exhibition of students' work from being held in those spacious halls of South Kensington, or, better still, in the City? In another letter to the *Times* Mr. Harry J. Powell makes the suggestion that the Royal Academy might include in the Winter Exhibition selected designs of students and actual specimens of industrial applied art, as an effort to bring the public into closer touch with designer, craftsman, and producer. At present the prize works of the schools are contemptuously housed in temporary and inconvenient buildings and sheds. Imagine such a treatment of national competitive art in old Athens, in the great days of the Renaissance, or in modern Paris! Even enthusiastic little parish art societies will choose the best available hall for their shows, and the neighbours will flock to criticise the works and praise the artists. We do not want the amateur without imaginative or executive capacity, but we do want to attract, select, and encourage all those who have real, perhaps latent, potentialities for art. As public interest awakens to the practical importance of this question other things will become practicable; even, as Mr. Crane suggests, a separate Department for Art and a Museums Board, correlated possibly, we would add, to the general Board of Education on the one hand and to a great Department for Industry on the other.

The Recent Celluloid Fire.

In view of the great importance of this case as an illustration of the extreme danger of storing and working celluloid in ordinary London buildings, we are pleased to see that the *Medical Press* has made some rather strong comments upon the apparently apathetic attitude of the Home Office towards the subject. We agree with that journal in feeling strongly that this case ought not to pass by as a mere nine days' wonder, and therefore, although we dealt with it at some length on the 9th inst., we again refer to it with the special object of emphasising, so far as we are able, some of the very pertinent remarks of Dr. Waldo, the City Coroner, in his thoughtful address to the jury. It must be borne in mind that Dr. Waldo speaks with especial authority, for, as he told the jury, he has, since the Queen Victoria-street (celluloid) fire in 1902, held nineteen (it is now twenty) inquests on as many victims (eighteen of them young girls) of celluloid fires, besides many more inquiries as to non-fatal celluloid fires held under the unique powers of the City of London Fire Inquests Act, 1888, which include powers to inquire into the origin and prevention of like fires in future. Dr. Waldo drew attention to the fact that after holding inquests on two celluloid fires in St. Paul's Churchyard the jury and the City Corporation had asked the Home Secretary to legislate, but without result. He also noted that, even after this latest disaster, the official argument in evidence was, apparently, that there had not yet been a sufficient number of deaths caused by celluloid to warrant the introduction of special legislation against its use and storage in towns—an argument which ignores the all-important question of prevention. Finally, we recall Dr. Waldo's statement that he thought the jury would agree with him in feeling that the time had now arrived for the responsible authority—the Home Office—to act. We would merely add to this that probably, under existing circumstances, an independent inquiry, apart from the Home Office, and followed by prompt action, would be more satisfactory to the workers in celluloid whose fears have, not unnaturally, been aroused by recent events.

LONDON SESSIONS HOUSES.

Pending the demolition of the old building and the erection of the new one for the amalgamation of the North and South London Sessions, the business will be carried on in the old Clerkenwell Court House, which will then be pulled down. The cost of the new Sessions House is approximately estimated at 100,000*l.* Thus will disappear, says the *Morning Post*, two buildings of considerable historic interest, both associated with the rude justice of the early part of last century. Newington Sessions House was built on the site of Horsemonger-lane Gaol, formerly the prison and place of execution for the County of Surrey. The land, which was originally purchased from a market gardener, is 3¼ acres in extent. The Sessions House, originally constructed in 1799, was rebuilt in 1875.

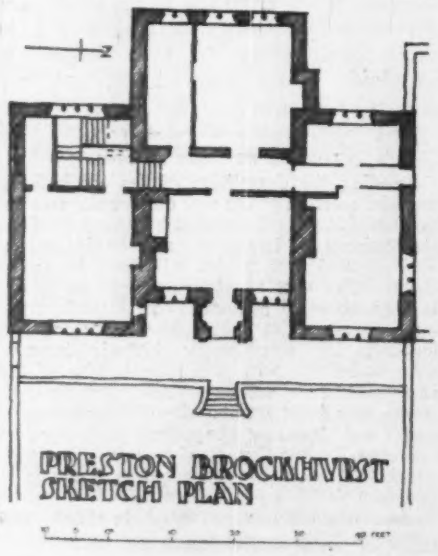
FORTY-THIRD ANNUAL EXCURSION, AUGUST 12 TO 17:

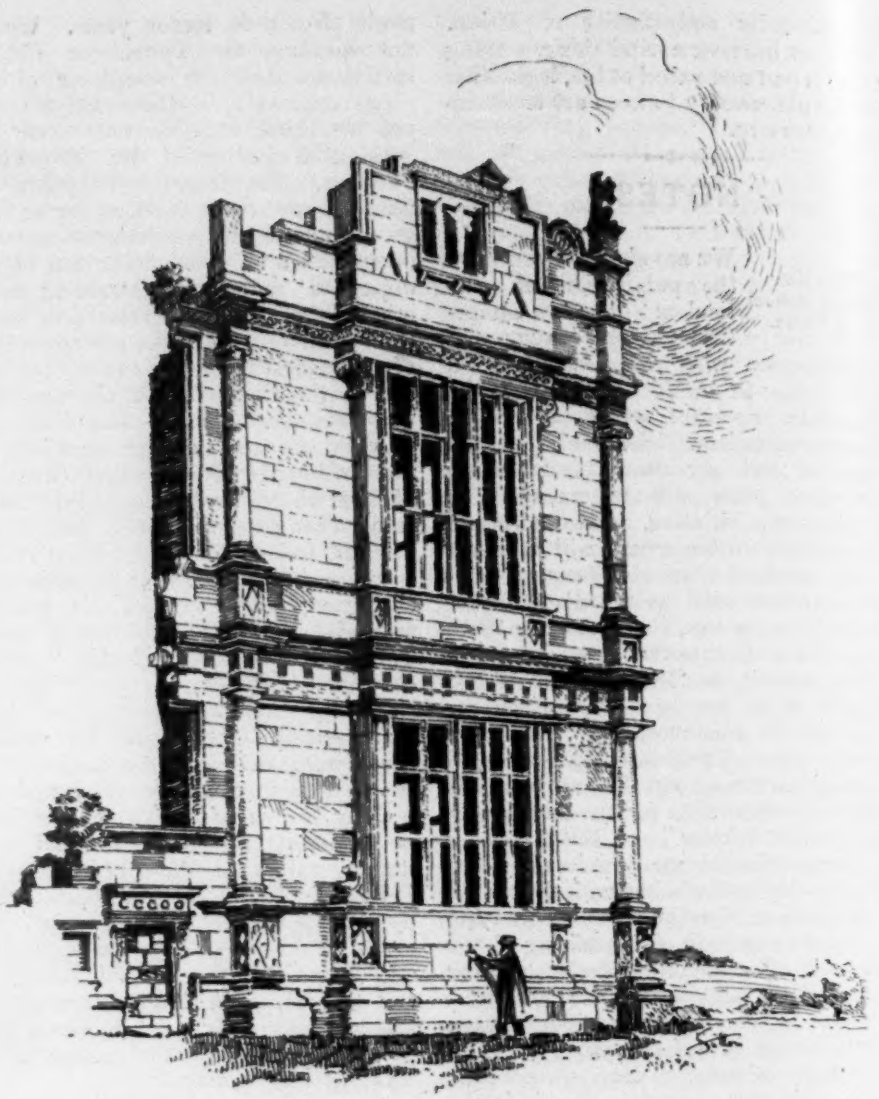
SHREWSBURY AND DISTRICT.

THOUGH previously visited by the Architectural Association over twenty years ago, Shrewsbury provided both the occasion and opportunity for an almost entirely different programme this year, rendered possible by the extreme wealth of interest of the surrounding country, and desirable owing to the presence of a goodly sprinkling of members who had attended the previous excursion to this district in 1891.

The county has always occupied a position of some importance since civilisation in England began. It had at least one important Roman station—Uriconium—of which considerable remains have been found. During the Middle Ages, when the Welsh boundary was a frontier, the command of the Border districts, or Welsh Marches, was esteemed valuable, and the neighbourhood was studded with castles and defensible manor houses held by various noble families. With the coming of the Tudors and more peaceful times the noble families remained, beating their swords into ploughshares and converting their castles into peaceful dwellings. It is to this era that the more interesting of the buildings belong, and, owing to the great prosperity of the county during the reign of Elizabeth, their number is very large. The variety of material at hand prevented the development of any markedly local manner; stone, brick, and half-timber construction are about equally common—domestic buildings in the latter method being usually the earlier—and good specimens of each type were included in the programme, though some of the best were notably absent owing to previous visitation, as, for instance, Condover Hall.

The majority of the party assembled on Saturday evening previous to the official commencement of the programme on Monday, August 12, and with accessions of strength during the day devoted a showery Sunday morning to a preliminary inspection of the town, of which detailed examination was reserved for Saturday following. In the afternoon a party visited Buildwas and Much Wenlock.





MORETON CORBET

First Day—Monday.

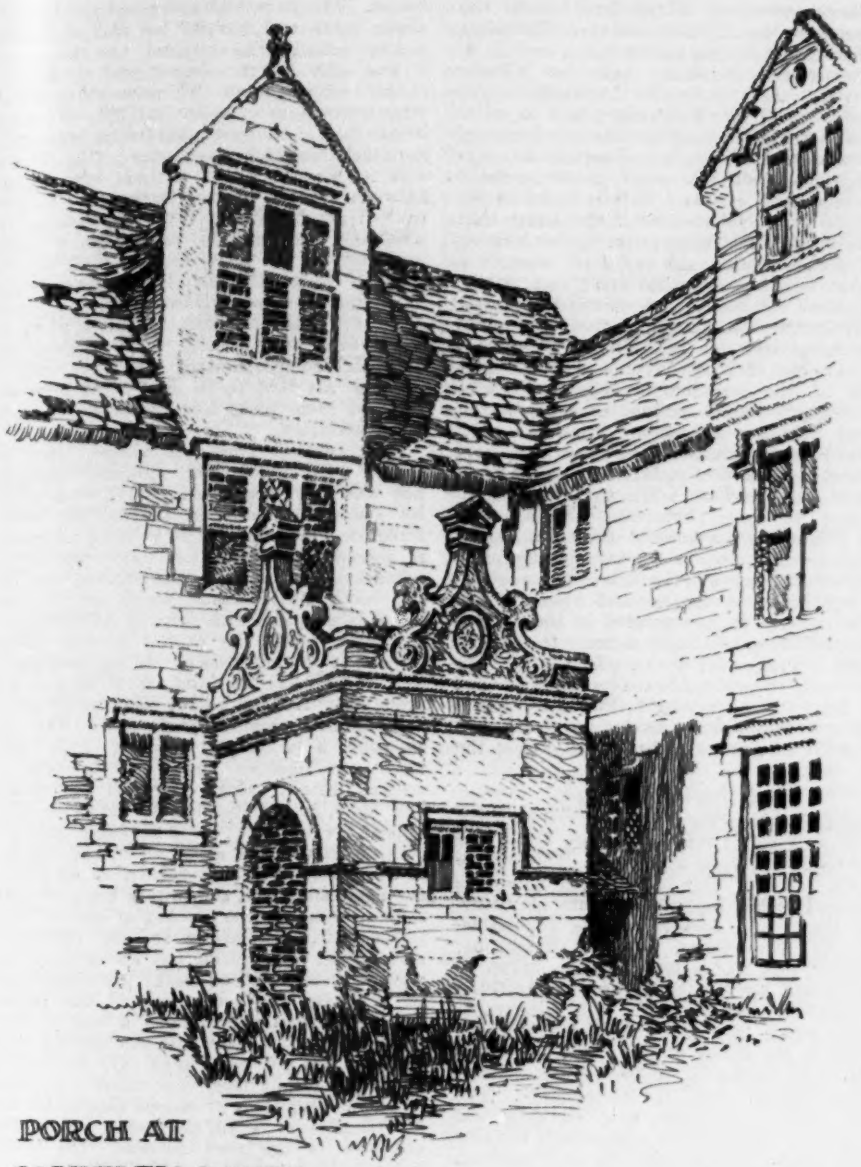
Owing to the proved convenience and adaptability of motor transit in its limited application of the previous year, the Secretaries had adopted it to a much larger extent on this occasion, and on Monday the programme, consisting of five items traversing a distance of over twenty miles, was so arranged as to leave an eight-hour working day clear of travelling time.

The first place visited was Allbright Hussey, about three miles north of Shrewsbury, where the Manor Farm shows interesting fragments of two successive building schemes, each appearing to be part of a larger house. The manor belonged first to the Husseys and afterwards to the Corbets, both names recurring again and again throughout the records of the district. The earlier part of the existing house is a richly-detailed timber-framed building of 1524, its most striking feature having been apparently an entrance porch, now badly mutilated and shorn of its original gable (or perhaps upper story). It shows local characteristics in the twisted shafts attached to the main posts of the framing and the repetition of sunk quatrefoils on the fascia and other horizontal members. A fine shafted chimney of six flues rises to the right of the entrance. The rooms in this portion of the house have moulded beam ceilings and unmitred oak panelling. The second portion is a brick and stone building of 1560, bolder in scale and with loftier stories than the timber building. A fine room on the ground floor of this portion has mitred panelling and a characteristic chimneypiece. An inscription declares the panelling "made by Edward Huse, 1601."

A further distance of about five and a half miles brought the party to Grinshill, where are situated the quarries from whence much of the local stone was, and is still, obtained. Here a brief visit was paid to the Manor House, an example of the vernacular manner of the district as carried out in stone well into the Renaissance period. The front, which is of good masonry, of very large stones, had originally a recessed entrance between two gabled projections, but the recess has been arched over and a tiny central gable built out flush with the two wings, giving a very odd effect. The windows—mullioned and transomed in one plain splayed order, with an extra splay round the opening—are placed without relation to centre lines save those actually in the gables, and the proportions are rather heavy—1 ft. 8 in. on centres of mullions, which are themselves 6 in. wide, leaving very little glass in proportion to stonework.

A short ride onwards, and Preston Brockhurst Hall was reached. This proved a very interesting house, with its surroundings and outbuildings in some degree of completeness. The original hall formed part of the dower of the heiress of Bartholomew Turret who married Sir Richard Corbet, of Caus Castle. Impoverished by the expenses of the Civil War and the heavy fines imposed by the victorious Parliament, the family were obliged to sell the property, and the present hall is recorded as the work of Mr. Wingfield, of Shrewsbury, who pulled down the old house and built "a faire hall of freestone," using no doubt the old material as far as it would serve. In 1743 the house returned to descendants of its former owners, and the raven badge of the Corbets now surmounts the porch.

It is an interesting example of the conservatism of West-Country building during the Commonwealth. Although its front is roughly symmetrical (see sketch plan), it is not rigidly so, the right-hand gable being considerably narrower than the left, but rising in a steeper pitch to the same level at the main ridge. The plain mullioned and transomed windows might be 100 years earlier, but the ogee moulding is solely used everywhere for strings,



PORCH AT MADELEY COVRT.

copings, and chimney bases indiscriminately. The central two-storied porch curiously oversails on ogee corbelling above the ground story, and again below the coarsely-balustered parapet. Two good chimney-stacks of the Cotswold type are well placed on the main ridge; a third, of three circular shafts, rises on the external wall and displays a curious feature, apparently an early device akin to the modern down-draught-preventing pot. The Hall stands very pleasantly on rising ground looking east over the village, and is helped in appearance by a low-walled forecourt with two fine gate piers and an inner terrace with central steps. The stable and granary to the north are contemporary with the house, and the former shows some good detail.

Internally there is a good deal of interest in the house, though chiefly of later date than the original construction. Some amount of interior rearrangement appears to have been done in the early XVIIIth century, and from this time the main staircase, with twisted balustrade, and some good bolection moulded panelling, probably date. The earlier staircase remains above the first floor, and a portion of the lower flight has apparently been reused in the basement.

The weather, though none too promising, had so far remained kind, and a wayside lunch was here partaken of before proceeding to Moreton Corbet. Here the ruins of two distinct houses are to be seen, so fragmentary that it is difficult to piece them together. Apparently the mediæval castle (of which parts appear to date from the XIIIth century) was partly modernised in the XVIth century. Over its main portal, in which the slit for the portcullis may be seen, is inserted a tablet with the date, 1579, and initials S. A. C., while above is a fragment of a window of about that date. On the south side of the castle enclosure stands the shell of one wing of a mansion which, had it been completed, must have taken rank with the finest of Jacobean work. Camden records that "Robert Corbet, carried away with the affectionate delight of architecture, began to build in a barraine place, a most gorgeous and stately house after the Italian modell." This was pushed on through the first part of the XVIIth century, but remained incomplete at the time of the Civil War, when it was garrisoned first for the King and then for the Parliament, and irretrievably damaged. As so frequently happens in similar case, Robert Corbet is reputed to have brought the design from Italy. The building, however, abundantly disproves this story—it has no Italian characteristics and displays all the grotesque mannerisms of our own Elizabethan and Jacobean styles. The west end of the new wing shows change of intention which makes it difficult to follow, but the south front is quite intelligible. The façade has a strong base broken only by two relatively small doorways. Above are two stories, each with its pedestal Order of three-quarter columns, Doric below, Ionic above, with enriched entablatures bearing emblems, initials S. A. C., and the raven and elephant-and-castle badges. In the centre and at each end is a slightly projecting bay surmounted by an ogee gable containing a pedimented window. Notwithstanding a fairly correct treatment of the Orders, there is strong mediæval feeling about the carving of finials and panels, and the details generally are of a barbarous character. Moreton Corbet Church, adjoining the castle ruins on the north, embodies fragments of Norman work, but derives its chief character from the south aisle, or Corbet Chapel, added about 1325, and containing two altar tombs with coloured effigies. There is also an interesting Squire's pew of 1778 in the chancel. The tower, built in 1539 by bequest of James Janyns, Clerk, with an upper stage in the Gothic of 1769, shows characteristic detail in the spandrels of the western doorway, delicately carved with ribbon-like foliage and the royal arms, a Tudor rose and fleur-de-lis appearing above the label.

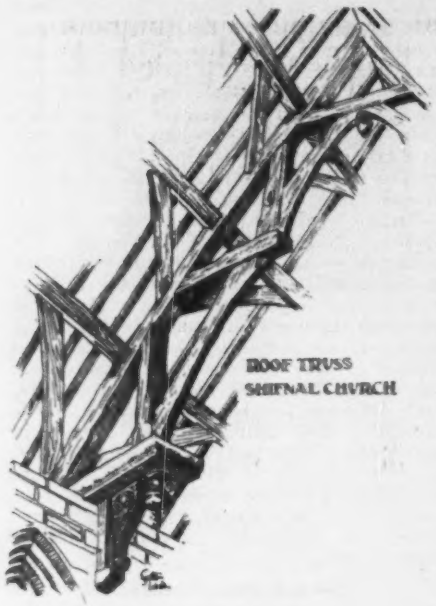
Leaving Moreton Corbet, Battlefield Church was visited on the way back to Shrewsbury. As its name suggests, this church was founded on the site of the Battle of Shrewsbury. It was the chapel of a college of priests, and was built on land given by Sir Richard Hussey about 1406. It subsequently became ruinous, and its condition in 1853 is shown by some old drawings in the tower. At that date the western bays were roofless, and the east end, closed in by a wall of which marks yet remain within, was roofed in three narrow spans with four Doric columns supporting a barrel ceiling over the centre aisle. In 1861 the whole was restored by S. Pountney Smith. It is now the Parish Church in place of Allbright Hussey, which was destroyed long previously. The building presents remarkable features. Though the date is well attested, three of the windows are of the ordinary mid-XIVth-century type of reticulated tracery, and, though only a college chapel and hence probably without any structural or other division into nave and chancel, the eastern bays differ in design from the western, which difference has been accentuated by the restoration. The foundations of a part at least of the college remain on the south side, also its attachment to the church. A curious Elizabethan lych-gate is said to have been brought from Upton Magna, where from internal evidence it apparently served a different purpose—probably a porch.

Second Day—Tuesday.

Threatening weather attended the start, and Wroxeter Church, the first halting-place, was reached in depressing conditions. A plan of this church (as of most of the principal ones of the county) appears in Cranage's new and excellent work on the Churches of Shropshire. It would seem that the north wall of the chancel is Saxon, built of Roman stones, and the bulk of the remainder Norman work of the late XIIth century; but XIIIth-century lancets were inserted in the nave on the north side, and the whole of the south wall dates from 1763, when it was rebuilt after a collapse. The churchwardens' accounts for 1708 disclose items for repairs, including one for "building a Butrice," so that it had apparently been insecure for some time. The chancel arch, of transitional date, has a curious four-centred outline, probably the result of settlement. The nave ceiling is flat and plastered. The most interesting exterior feature is the western tower, built after the dissolution of the monasteries, of stones from Haughmond Abbey, many

Battlefield Church: Wooden Figure of Virgin and Dead Christ.

of which are worked in in curious positions, but with rather good effect; the general outline and disposition of ornament follows several earlier towers in the district. Internally the chief interest centres on three fine early Renaissance altar tombs on the north and south



ROOF TRUSS SHIFNAL CHURCH

sides of the chancel. The more westerly of the two on the north side is particularly fine, and its effigies of Sir Thomas Bromley, C.J., and his wife, *temp.* 1551, are so excellently carved that the employment of Italian workmen may be suspected. Both this and the later tombs to John Berker of Haughmond (1618) and Sir Richard Newporte (and their wives) are richly coloured. The excavations on the site of Roman Uriconium were not visited, the next place reached after a long ride through hilly country being Shipton Hall in Corvedale. Upon arrival the sun gleamed out and the weather mended, conditions becoming generally more pleasant. This house, of which a sketch is reproduced on one of our plates, is a beautiful example of the latter part of the XVIth century, very complete on the entrance front, though internally altered and extended at the rear in the XVIIIth century. It has an E front without the centre limb, the porch being pushed into the angle by the right-hand projection and carried up as a tower two stages above the main eaves. The hall extends the full distance between the wings, but has been refitted internally in Georgian work of probably 1769, which date appears on the rain-water head outside. To the right on entering lie the kitchen and offices, and in the opposite wing a drawing-room with a good Georgian chimneypiece. The room apparently built as a dining-room at the time of the alterations, seems never to have been finished. Above this latter is a fine library with fittings and chimneypiece well detailed and coloured in a scheme of apple-green and white. The stairs present some curious features, scroll brackets of the ordinary outline having a series of tiny interlaced ogee arches above in place of the customary foliage—a sort of Georgian Gothic.

On the first floor is a good deal of original panelling, perhaps refitted from the lower rooms in most cases, but in one small room at the head of the stairs evidently in its original position. This room is very charming and has a frieze and cornice full of piquant detail. There are also examples of good hinges and door furniture of both dates. The house, which belonged to the Mytton family, until recently contained a fine collection of furniture and relics such as accumulates during a long family ownership, but this has been sold and dispersed. It is very fortunate that the alterations which it has undergone show no trace on the entrance front, which, with its walled garden, terrace steps, and fine masonry of small coursed rubble, with upstanding brick chimneys, is typical of the best work of its period. Leaving this house with some reluctance, a short distance over farm roads brought the party to Wilderhope Manor House, a forlorn but lovely building of the late XVIth century. It was built or remodelled by Francis Smallman, who died in 1599, and his initials with those of his wife Ellen occur repeatedly on the plaster-work of the ceilings within. The house remained in the family until the beginning of the XVIIIth century. The plan, which is an interesting one, is given in Vol. II. of Garner and Stratton's work on "Tudor Domestic Architecture." Internally the plaster-work of the Hall ceiling and in other rooms on the ground and first floors is beautiful and uncommon. There is also a good chimney-piece in the hall, and some panelling dated 1672 in a small parlour. It is evidence of the early date or belated style of the house that all the internal partitions are of timber framing with plaster panels, and the main stair is a circular newel stair with solid oak treads. This shows externally as a semicircular turret capped with a low conical roof, and gives a charming character to the north-west front, seen in Mr. Sutton Wood's sketch. The colour of the building is delightful—warm yellowish-grey small rubble uncoursed, tall shafted chimneys of mellow brickwork with diapered bases, lichen-clothed stone slate roof combine in a beautiful picture such as the hand of time alone perfects. The party was again reluctant to leave, but was collected with some difficulty to proceed to Broncroft Castle. Leland describes this as "a very goodly place like a castell, longing to the Erle of Shrewshire," but very little of the fortified house of the XIVth century is incorporated in the present house, which dates almost entirely from 1860. Making a brief stay, during which they were most kindly entertained to tea by Mr. Whitaker, the party then returned through Church Stretton to Shrewsbury, having covered nearly fifty miles of good and bad road during the day.

Third Day—Wednesday.

Threatening weather continued, and the start for the long motor ride to Madeley Court was made under cheerless conditions. Fortunately the rain held off. This one-time fine house has progressed rather beyond the state of picturesque decay and borders on the deplorable, while its surroundings are not inspiriting. Originally this was a house of the Priors of Wenlock, and here the last prior was permitted to retire by Henry VIII., who afterwards sold the estate in 1544 to Sir Robert Brooke, Speaker of the House of Commons, and afterwards Chief Justice of Common Pleas. He is recorded to have built the house anew. The almost ruined buildings now standing are obviously the result of the intermittent activity of many years. They consist of a main building, roughly L-shaped, with a large walled garden to the north-west and a forecourt with detached entrance lodge on the south-west, the outer faces of the L fronting north-east and south-east. Evidences appear to show that the plan was originally an E, traces of a wall, with base mould and sills, extending parallel with the existing wing, and a gable-end in the portion which such a wing would adjoin having obviously been rebuilt in later masonry. It may also be conjectured that the first building, in which the hall is situated, was at first lower and without dormers, the great fireplace having been raised on the upper floors on either side of the original chimney. There is now an upper range of lofty stone dormers with curious crocketed finials. The porch, near the angle of the L—seen in the sketch in one of the Plates in this issue—is a grotesque example of Jacobean design, and the detached gatehouse appears to be of the same date; it has an arched entrance flanked by curious octagonal turrets roofed by pyramids well above the main roof, and the approach centres with the flank of the hall porch in which the entrance lies. The internal plan of the house is barely decipherable, but it can be made out that the hall occupied the full width of the centre block, with a circular oak newel staircase in the angle with the wing. The interior has been stripped of most of its interest, but a room on the first floor has a geometrical rib ceiling of early type in which one coat of arms remains, and there is another fine coat with supporters and mantling on the north wall of the hall. The internal partitions are of heavy framing with wattle and plaster panels, as at Wilderhope. A curious astronomical sundial stands in the centre of the garden.

At Shifnal (formerly also called Idsall), the next place visited, is a beautiful and interesting church of which a very full description had been most kindly furnished by the Vicar. Parts of the chancel, transepts, and west wall are of late XIIth-century work, the central tower, was rebuilt, *circa* 1250, on sturdy arches west of the Norman chancel arch, which remains intact. The nave and aisles and the beautiful south porch and parvise are also of XIIIth-century date. The chancel was lengthened in the early XIVth century, and the Moreton chapel is slightly later. The nave and choir roofs were renewed, after a fire in 1592, with Elizabethan double-hammer-beam trusses (see sketch). So much for bare description. The interior, with its clearstory wall without windows, and lofty dark roofs, is very impressive; and the vaulted porch, with an inner bay crossing the aisle and carrying the parvise as a gallery right up to the nave arcade, is an unusual feature. Externally the church groups beautifully from many standpoints, perhaps the most delightful being the south-west view, where the plain west end without aisle windows and delightful composition of the porch with its staircase are best to be seen. The town is a pleasant little place and contains some good quiet buildings.

After Shifnal, Tong was visited. Here the church (like Battlefield) was also collegiate, but was only made so in 1411, when rebuilt by Dame Elizabeth de Lingen, wife of Sir Fulke de Pembruge. The building as existing is almost entirely of one date—that of the rebuilding—but it has been pointed out that the south nave arcade shows on the aisle side a label mould with stops of XIIIth-century character, while the capital of the western respond is of similar date. As the nave side of this arcade has no label, it is argued with probability that an earlier nave stood on the site of the present south aisle. The plan suggests a transeptal church with aisled nave and unaisled choir, but actually the central tower, with octagonal belfry-stage and spire, is unsupported by transepts, what appear to be such on plan being merely a continuation of the aisles up to the east face of the tower. The church is full of old fittings, the choir stalls and screenwork being very fine indeed, especially the parclose at the end of the south aisle, with lovely running carving on cornice and rail showing oak leaves and acorns and a conventionalised stalky plant which may be ivy. On the south side of the pseudo-transept is the Golden chapel, a beautiful little building of about 1500, with fan vaulting richly coloured and gilt (see Plate). On the removal of a wooden floor from this chapel a fine brass and some fragments of stained glass of the late XIVth century were discovered. The latter are now in the west window. The church is a positive mausoleum of the Vernon family—as Leland says, "Many or almost al ly there that were famous of them sins the Fundation." He adds, "There was an olde Castel of stone

STALL TONG CHURCH

caullid Tunge Castel. Sir Henry Vernoun a late daies made the castel al of brike." This is shown in Buck's view of 1731, but was bought and demolished in 1764 by George Durant, who is said to have amassed a fortune in the lucrative post of Paymaster of the Forces. He seems

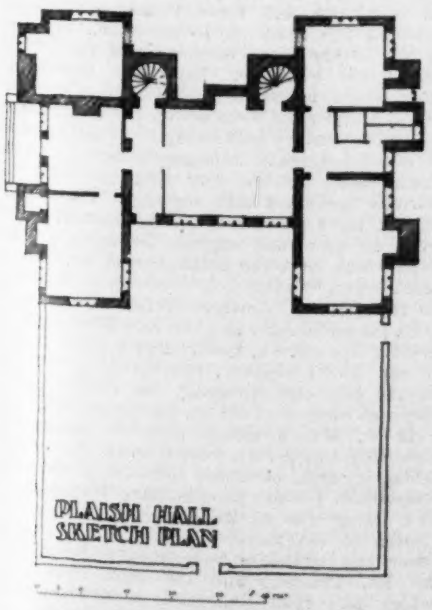
to have designed the rebuilding himself, in a style intended to be Moorish, and the only reflection which is suggested thereby is a paraphrase of the old saw, "A man who is his own architect has a fool for his client." A fragment of wall with window jambs blocked and stuccoed over at the south end is all that can be made out of the brick building of Sir H. Vernon.

Fourth Day—Thursday.

For this day's programme the rail was utilised, an early start being made for Stokesay, where the whole morning was spent in and about the "Castle," fortified manor more properly. This building is so well known and has been so often illustrated that any extended description is superfluous. Very complete measured drawings by Mr. David Robertson were published in the Architectual Association "Sketch Book" in 1909. The earliest portion appears to be the north tower, which may date from the ownership of the de Lacys or de Says, though the overhanging timber top story is, of course, much later. The hall probably is of the time of John de Vernon (1240), except the buttresses next the courtyard, which were added in 1860, and are in worse repair than the original work. The most interesting historical fact connected with the house is, however, the ownership of Lawrence de Ludlow, to whom license to crenellate was issued by Edward I. (1290–1). He must be among the first of what we are now accustomed to call "merchant princes," being a burgess of Ludlow who had made a fortune as a cloth merchant, and bought Stokesay as a country seat. The multangular south tower seems to be his work, together with the enclosure walls of the court-yard, which have perished. His descendants held the estate until 1498, after which it passed to the Vernons, who owned it until 1607. The house was continuously inhabited up to the XVIIIth century, and, though each generation left its mark, the building remains subetantially a work of the XIIIth century. The charming little Elizabethan gatehouse—surely one of the most-sketched buildings in existence—comes as a welcome relief to the custom of tarring, which vulgarises so much of the half-timber work of the Welsh Marches.

The little church, which adjoins the castle on the north, is stated by an inscription above the tower arch to be "rebuilt by the pious oversight of George Powell, Gent., and George Lamb, Churchwardens," in 1654. Most of the work now seen is of that date or later, and of rude character, the most interesting feature being a covered double pew on the north side of the chancel.

The afternoon was spent at Ludlow, chief attention being bestowed on the splendid Parish Church of St. Lawrence, a cruciform building of imposing scale and replete with interest, to which it is impossible to do justice within the limits of this report. A plan, with

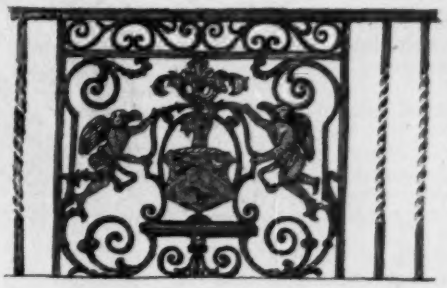


numerous good illustrations and a most careful examination of its growth, is published in Cranage's "Churches of Shropshire" already referred to. Notwithstanding its evolutionary growth, the effect is that of a complete work of the late XVth century, at which date it was "pulled together." It contains some beautiful glass (unfortunately much restored), and the screenwork and stalls of the collegiate choir are very fine. The rood-screen is remarkable for the width of its centre opening. The very lofty central lantern tower, built between 1453 and 1470, is rather bleak in detail and inferior to the late towers of Somerset or Suffolk, but internally its lantern stage gives a grand effect at the crossing, and from all points in the surrounding country its great shaft is a conspicuous and noble feature in the landscape. The town of Ludlow, mentioned in "Domesday" as Lude, formerly derived its importance from the trade in Welsh cloth and so early as the XIIth century was gaining in prosperity so that the original church was considered too small. In 1232 the creation of walls and gates was considered, and in 1260 was under way. The formation by Edward IV. of the Court of the Marches gave a great impetus to the political importance of the town, but at the same time rendered it more and more an appanage of the castle, which became the chief seat of the Council.

The ruins of the castle buildings, which are very extensive, present examples of the work of all periods from the Norman of the original castle of Roger de Lacy as represented by the square keep or donjon, the circular nave of the later Norman chapel built by Joce de Dinan (*temp.* Henry I.), the splendid range of State apartments, along the northern side of the inner bailey, probably the work of Roger de Mortimer, down to the later works of Henry VII., when the castle was occupied by the Court of Prince Arthur, and the "repayrs" of Sir Henry Sydney, Elizabethan Lord President, in 1591. The chief interest of the buildings is in their picturesque and archæological aspects, and only a short time was spent in their exploration before walking across the Teme to Ludford in Herefordshire. Here the Manor House, though picturesque on the side towards the churchyard, was otherwise disappointing. Neither the church, almshouse, nor Old Bell Inn tempted a long stay, and a return was made to Ludlow, the well-known Feathers Inn being visited for tea. This is the most elaborate of all the timber fronts seen, but is less satisfactory than another of simpler character between Corve-street and the Butter Cross. It contains, however, some good panelling and chimneypieces, the large first-floor room having particularly rich detail and a plaster ceiling of later type than those seen previously. Its centre compartment bears the Royal Arms as also does the chimney-piece, with initials J. R. In the room to the right of the entrance on the ground floor is another Royal arms and supporters of extremely spirited execution. Another of the beauties of Ludlow is the Elizabethan Reader's House in the churchyard, which is now open to the public after having served for some years as a warehouse. After 1689, when the Council of the Marches had been abolished and the castle was allowed to fall into decay, the importance of Ludlow began to decline, but throughout the XVIIIth century it remained a sort of local metropolis, with its regular season during which the county families would go into residence as they now go to London. The town abounds in examples of quiet brick buildings of XVIIIth-century date, as in Broad-street, at the bottom of which is Broad Gate looking towards Ludford Bridge. This is the only one of the old town gates remaining and is much built up with later erections, though its original form is distinguishable on the outer face.

Fifth Day—Friday.

Plaish Hall was distinctly the success of the excursion—or would have been if the rain had not inopportunely descended to the confusion of sketchers. Stone and half-timber had been seen in plenty, but here was a brick house glowing with mellow colour and excellently kept. Parts of the house, and probably considerable parts, date from the XVIth century, the original licence to build having been issued by Henry VIII. in 1520. It was, however, remodelled by Judge William Leighton, one of the Elizabethan Council of the Marches and Chief Justice of North Wales, who died in 1606. Neglecting later additions which are inconspicuous, the house is a symmetrical H plan, the hall occupying the whole of the link, with ranges of rooms to right and left and circular newel stairs of solid oak in turrets at the opposite angles of one court. These turrets now rise above the main roof and are capped by ogee cupolas, while the court between them is filled in with outbuildings. This work dates from a restoration carefully done in 1885, previous to which the house was occupied as a farmhouse. A sketch in an anonymous work, published at Shrewsbury in 1868, shows



Balustrade Panel Plaish Hall.

the stair turrets carried no further than the first floor and the court free (as the one on the other and original entrance side still is).

Internally the chief interest is in the hall, which retains its screens in the original position—though remodelled—with a gallery over, and also has a curious rooflike construction supporting the topmost floor. A ceiling with similar moulds to those at Wilderhope exists in one of the rooms. But the beauty of the house is in its form and colour—the wide-jointed brickwork, with continuous diaper of dark-enders, stone quoins, and mullioned windows, boldly outstanding chimneys on the external walls with lofty chimney-shafts of moulded brickwork in ever-varying patterns, old roof of stone slates, and brilliant gardens recreated. The sun was the only thing required to perfect the picture.

After a stay of about an hour the party left for Preen, where to a small XIIIth-century church a large house has been attached by Mr. Norman Shaw. The house was built in 1870–2 for the late Mr. Arthur Sparrow, replacing the former Manor House, which occupied the same position. It exhibits many of the points which made its architect famous. His favourite disposition of the lofty principal rooms above a low ground story in which is situated the entrance hall, with spacious stone stairway to the upper hall, is well devised to suit the levels of the ground, allowing a vista from the dining-room at the south of the house to be prolonged through its whole length and along the upper terrace at the north end. Mr. Shaw's Royal Academy drawing of the design is preserved in the house. This house is pioneer work and must be judged accordingly but it is impossible not to feel that, however good it is, we of the present day are able to call to our aid more able craftsmen than were available at the date of its erection.

The small church at Preen—practically a complete work of about 1225—was a dependent cell of Wenlock, and its aisleless "nave," 70 ft. long by only 12 ft. 9 in. wide, was divided into monastic choir and parochial nave. It has a graceful triplet of lancets at the east end and a low-side window facing north, curiously recessed internally on either jamb, apparently for the contrivance of seats in the common manner of domestic work. A Jacobean pulpit and reader's desk, the latter dated 1646, with the initials I. D. * ?, stand on either side of the chancel.

Langley, the next place visited, provided in its desecrated chapel and ruinous gatehouse material for sketchers of which they were not slow to avail themselves. The chapel, about 48 ft. by 16 ft. 9 in., is extremely interesting as an example almost completely of the Jacobean period, preserving the original seating intact. It is a simple little building, rather uninteresting externally, but its internal arrangements, and particularly the seating of the east end, are very noteworthy. The altar table stands detached, and benches with book rests surround it, lining the east and north walls, and formerly (it is stated) the south also within the chancel, which is marked by a step. Immediately west of the step on the north side is the covered squire's pew, next to which on both sides of the central passageway are closed pews for the gentry, with rude benches westward for the common folk. The chancel is covered by a moulded trussed rafter roof, and the nave by a roof with arched principals, of which the most

HOUSE IN BUTCHER ROW SHREWSBURY.

easterly is dated 1601. It may be hoped that so unusual a building will not be suffered to fall into complete decay, as it now threatens to do. Langley, now a farmhouse, was the seat of the Lees until 1660, and from this family descended the famous Confederate General Lee, who commanded for the South in the American Civil War. The book of 1868, previously alluded to, shows more extensive buildings than now exist, all that remains being a stone archway with rooms on either side and a rubble wall, continued for a short distance northward, which is said to date from the reign of Henry VIII. (but looks earlier), raised in Elizabethan times and presenting, above, a front of good ashlar with two gables on the outer face, and upper stories of half-timbering next the former courtyard. It may be worth mention that the extreme thickness of the plaster panels from outer to inner face of these walls is only 3 in., though the main timbers are 6 in. The last place on the programme was Pitchford, where members were allowed the free run of the house, and by the further kindness of Lieut.-Colonel Cotes were entertained to tea. Pitchford Hall is celebrated as the finest half-timbered house of Shropshire; it is certainly the largest, and a very splendid example, but one feels that, charming as this magpie work may be when it appears, as at the porch of the Reader's House, Ludlow, or the gatehouse of Stokesay, relieved against a background of stone, the continued sparkle extending round all sides of a large courtyard is rather overpowering. Pitchford Hall is said to have been built by William Ottley, Sheriff of the County, in 1475, but the work suggests a rather later date. A plan is given in Garner and Stratton's "Tudor Domestic Architecture," and shows the disposition to be on the E form, with small gabled projections in the internal angles of the court, containing staircases. The detail is similar to the work at Allbright Hussey and many Elizabethan houses in Shrewsbury, though the timber bracing is on the whole simpler, showing a freedom from curved or shaped members. Some early photographs preserved at the house show the buildings in a very different condition to their present state, most of the windows being sashes and one of the end gables being disfigured by a mean brick chimney. It has been extended as well as restored to its former state, the only point in which it differs materially being in the proportion of its new casements, which fill the openings formerly occupied by the sashes—considerably larger in area than the original windows are likely to have been—on the upper floor they probably had their sills at the level of the intertie. Throughout the 400 years of its existence the house has only once changed ownership out of the ordinary course of descent, when in 1807 it passed to the Earl of Liverpool, grandfather of the present owner. A splendid series of portraits and some fine furniture fills the house—paintings of the second Earl of Liverpool, by Sir T. Lawrence and Hoppner; of Admiral Cotes, by Sir Joshua Reynolds; of John Cotes, by Hoppner; Mrs. B. Ottley, by Sir G. Kneller; and others of Prince Rupert and Sir Francis Ottley all being notable. Most of the interior panelling is modern, but the drawing-room, which has the portrait of Prince Rupert over its chimneypiece, has original work resembling that in the Solar at Stokesay, and the library has a chimneypiece bearing the date 1626 with initials T. O. and M. O. The greater part of the modern work at Pitchford Hall was carried out some years ago most skilfully by George Devey.

The church of Pitchford somewhat resembles Preen, but the chancel suffered alteration in 1719 and again in 1819. Eyton, the county historian, records that "a certain Lord of Pycheford, Radulf by name, built a church at Pycheford, procured it to be consecrated and presented Engelard his own brother thereto." Erect in the chancel are four interesting incised slabs to members of the Ottley family—late mediæval and early Renaissance—and a very remarkable oak altar tomb with figure of a knight, said to be Sir John de Pycheford, 1285. It is of immense size, the effigy being 8 ft. long and in good preservation. From Pitchford the excursionists returned direct to Shrewsbury, the last day's country programme being over.

Sixth Day—Saturday.

No organised programme of visits to the various interesting buildings of Shrewsbury was attempted, as the party had already begun to break up, but those members remaining devoted the forenoon to an examination of a few of the more interesting of the town's many old buildings. The finest church in Shrewsbury is undoubtedly St. Mary's, originally a collegiate foundation, but, apart from its XVth-century belfry stage and lofty spire, it is not externally imposing owing to lack of homogeneity in the way that the work of various periods comes together. The round arched nave is of remarkable interest, however, its piers and capitals belonging to the type which, since the publication of Mr. Prior's fine book on "Gothic Art," it has been customary to recognise as Western Gothic. These have been placed as early as 1160–70. There is good glass in the church, mostly Dutch and German of the XVIth century, but the Jesse window at the east end (restored) was brought from the east window of old St. Chad's in 1788.

If St. Mary's suffers from its patchwork condition, this is even more so in the case of the Abbey Church, of which the nave is the sole remnant of the monastic building, its preservation being due to its parochial use as the church of the parish of St. Cross. A short choir and transepts have been added (1887) by Mr. Pearson, and the nave clearstory, which had been destroyed, is now rebuilt, though the tracery and glazing which was inserted in the triforium has been suffered to remain. The south aisle has again received a level parapet, though internally the ceilings below the series of transverse gablets with which it is roofed are still apparent; the gable arrangement is intact on the north side. The church

originally had two towers in line (as at Ely), but only the western one remains, and that of the XIVth century, though the west doorway arch is part of the Norman nave. The two western bays of the nave are coeval with the tower, and it is a curious and not altogether satisfactory feature that the clearstory is continuous along the sides of the tower, which, with the huge west window inserted in the XVth century, gives it a highly insubstantial character. The modern London-road crosses the site of the monastic cloisters and severs from the church the only other considerable fragment remaining—the beautiful XIVth-century Reader's pulpit from the refectory wall—perhaps the loveliest of a lovely series.

The church of St. Alkmund was rebuilt in 1795, retaining only its XVth-century tower and spire; St. Julian's, rebuilt in 1749, also has a XVth-century tower. Old St. Chad's, abandoned after the fall of its central tower in 1798, was replaced by the new church then building, on another site above the quarry. This is a remarkable design; it has a circular nave with gallery and pews concentrically arranged, a western tower and portico, with a circular vestibule between it and the nave.

Shrewsbury Castle was built originally by Roger de Montgomery across the narrow neck of land, where the wide loop of the Severn gives Shrewsbury its protected site. The remains now existing are chiefly Edwardian, and are in use as a private residence. The prosperity of Shrewsbury as a town and a metropolis to the surrounding country reached its height in the XVth and XVIth centuries. From the days of Henry IV., to whose usurpation the townsmen gave early adherence, its importance continued to increase. There are in the town many examples of half-timber houses of XVth and XVIth century date, one of which is illustrated on page 228. The richest detail of the earlier century is shown at the house on Wyle Cop, where Henry of Richmond slept in 1485. Only a portion is exposed to view, but further equally rich work is doubtless in existence beneath later plastering. The well-known corner building in Butcher-row, with its original shops, is of only slightly later date. Of the succeeding century the examples are numerous, dating chiefly between 1570 and 1600, and characteristically rich, while across the Welsh Bridge in the district known as Frankwell are further examples, mostly of slightly later date. The curious little Gateway to the Old Council House is as late as 1620. Though most famous for its half-timber work, Shrewsbury can show good domestic buildings of stone and brick. In Hill's-lane is the sadly battered ruin of a fine Elizabethan brick building called Rowley's Mansion, and outside the walls beyond the Abbey is White Hall, built in 1578–82, by Richard Prince, partly of materials taken from the monastic buildings. He is also recorded as buying 1,500 oak-trees from Acton Scott for use in its construction. Though less appreciated locally, this is really the finest of Shrewsbury's domestic buildings, and its singularly complete surroundings enhance its interest. It is a square on plan, three stories high, with three gables on each front, a lofty octagonal central lantern with ogee cupola, and tall brick shafted chimneys on the external walls. The original entrance by a low porch on the west front is approached through a charming little lodge on the high boundary wall which encloses the gardens. A spacious walled garden next the principal rooms on the south front has an octagonal dovecot in diapered brickwork corbelled out below the eaves with trefoil corbelling resembling the Tudor work of Layer Marney and other buildings in East Anglia. The name White Hall arises from the fact that the builder, desiring (with singular delicacy) that the origin of his stone should not be too apparent, coated the building with whitewash. That is the reason current locally, where it is considered fortunate that the "absurd" custom has been discontinued; but the pitted and decayed surface of the red sandstone walling suggests another motive. Its colour and rugged texture are most effective, but must cause disquiet for the future. A sketch of this house will also be found on one of our Plates.

Other Shrewsbury buildings better known are the Market House (1596) on its pillared arcade of stumpy columns (measured drawings appeared in the Architectural Association "Sketch Book," Vol. XI.) and the School (1617–27), now used as the Library and Museum.

The remaining members of the party dispersed on Saturday afternoon, in agreement that, notwithstanding cold and showery weather, one more success had been added to the long list of excursions arranged by Messrs. Talbot Brown and Hennings, the Honorary Secretaries. Thanks must also be recorded to Mr. Shaylor, F.R.I.B.A., of Shrewsbury, who rendered most kind assistance during the first three days of the excursion.

THE SUMMER SCHOOL OF TOWN PLANNING AT HAMPSTEAD GARDEN SUBURB.—II.

THE Town Planning Act and other legal aspects of the subject were dealt with in a series of three lectures by Mr. E. A. Abbott, the Clerk to the Urban District Council of Ruislip and Northwood.

His interpretation of the Act and its application was of a special interest from the exceptional practical experience in its working that he has gained in the preparation and negotiation of one of the first schemes under the Act. We can only touch a few of the points of special emphasis, difficulty, or criticism raised by Mr. Abbott. To start with, the Act has no definition of a town-planning scheme—a fact which a former lecturer said he had discovered to his cost. Nor does it define the term owner, but Mr. Abbott says probably the definition in the Land Clauses Act can be taken that an owner is a person entitled to convey.

The kind of district for which a scheme is suitable is a growing district. As to the amount of land to be included, Mr. Abbott advises too much rather than too little; experience, he says, shows they might at Ruislip very wisely have included more. Also it is well to make good use of sect. 54 (3), referring to land already built on, and include old houses standing in a lot of land, old cottages; in fact, all likely to be pulled down and rebuilt within a measurable period.

The first notice Mr. Abbott considers the most important of all, and that it is desirable to serve the map with it; also that it is of most vital importance to prepare, whatever the trouble, an accurate plan and schedule, including every holding with its owner and occupier. To avoid unnecessary objections and delays more need not be said about the scheme at first conference than is absolutely necessary. The principle of the Act is co-operation and agreement, but the principle of compulsion is also in the background. Mr. Abbott has found that, with few exceptions, satisfactory arrangements can be come to with landowners, even where at first hostile, and even on such a point as limiting the number of houses on the acre to eight. There is likely to be some opposition with traffic roads, and especially where landowners are hostile, it is well to show as few roads as possible beyond what are clearly necessary, and for the rest rely upon carefully-drawn provisions in the scheme. The question arises as to how far a town plan can be modified without going to the Local Government Board, and Mr. Abbott suggests giving the responsible authority limited powers to modify by agreement with landowner and developer. All open spaces and all land required for sewerage works, destructor, etc., should be appropriated at outset. Land purchasable by the local authority will probably have to be paid for on approval of the scheme.

Necessary definitions should be in the scheme itself and not by reference.

Coming to the question of the number of houses to the acre gross, Mr. Abbott considers a strong stand should be made for a maximum of twelve. If a man gives up part of his land for open space, he might be allowed to put a greater number on the rest, say up to twenty per acre. A man owning 10 acres, for instance, is entitled to erect 120 houses; but if he undertake to keep 6 acres open he might build eighty on the other 4 acres, and if he chose to do so at a future time, forty more on the 6 acres left open. The principle of the "land unit" provides against these conditions being disturbed by severance or otherwise. Mr. Abbott discussed the several proposals for the land unit at Ruislip and Birmingham and elsewhere. At Ruislip it is proposed that not more than one quarter of the area of plot shall be covered by buildings in the case of dwellings, or more than half in the case of shops, and, with more than eight to the acre, buildings shall not be more than two stories high, and another in roof. Private open spaces, if so secured, are as good as those actually given up, and there is no public expense of upkeep.

The question of provisions is still *sub judice*, and the Local Government Board have not yet laid their general provisions before Parliament.

Mr. Abbott thinks local councils might be allowed to interfere with regard to external elevations, etc., with an appeal to a referee appointed by the Royal Institute of British Architects. We doubt whether such a proposal would appeal to architects or their clients.

It will augur well for the success of the Town Planning Act and of the movement if the legal officers of local authorities generally will tackle the subject with the enthusiastic thoroughness and goodwill of Mr. Abbott.

Mr. W. R. Davidge, F.S.I., A.R.I.B.A., A.M.Inst.C.E., gave two lectures on "The Surveying and Engineering Functions and Problems of the Town-Planner from the Municipal Surveyor's Standpoint."

He dealt in some detail with the survey and setting out of contours, gradients, and property boundaries, with the planning and construction of the sewerage system, explaining the advantages of the dual system, methods of alignment, laying and testing, with outfalls and sewage disposal works, and also with house drains. He went into the questions of water supply, wells, and streams, head of water for fire prevention, reservoirs, street watering and maintenance. He dealt thoroughly with roads, from preliminary levels and selection of route to lighting and the requirements of local authorities previous to the adoption of a new road, describing materials and methods of road-making and paving, footpaths, tree-planting, the laying-out of roadside spaces, public squares, etc., and the allocation of sites for various municipal and public uses. He also dealt with street traffic, tramways, and motor traction, and with modification of by-laws.

Mr. Davidge remarked that a thorough preliminary study of the ground is essential; and the scheme must be evolved with continual regard to all the above essential details.

He very aptly illustrated and emphasised his points by reference to the premiated competition plan for the Federal Capital of Australia. By means of a most interesting model of the central part of the site, with the principal roads of the design sketched on, he showed how a geometrical design that looks very nice on paper, and which may have many points of real merit, may yet involve the developer in many difficulties and much cost on so undulating a site.

Mr. Davidge insists—and we are quite with him—on the necessity of engineering and architectural problems being considered together from the very outset. If the scheme must, as he says, be evolved with continual regard to its practical accessories, these also, we would add, must be settled with continual regard to æsthetic fitness, or, as the Act puts it, amenity. There is no line between the engineering and architectural problems. Both have in view the same fitness for use and purpose; and the æsthetic fitness, the beauty which the architect aims at, the architectural composition of building with building, and of buildings with the natural amenities of the site, should be but the fine flower and expression of practical conditions well met, and purposes well served, and not a mere decoration superimposed upon a scheme worked out in a purely utilitarian spirit. A more or less conscious recognition of this probably accounts for the fact mentioned in discussion by Mr. A. H. Campbell, City Engineer of Edinburgh, that town planning seemed of late to have fallen almost entirely within the province of the architect.

The function of the municipal engineer seems clear. He has, in the general interest, to see to the provision of main lines of traffic, whether of road, rail, or waterway, and of drainage, and to the exigencies of water supply, and many other practical necessities, but not, save in special cases, to town plan in detail.

The problem of public criticism or control of architectural amenity has yet to be solved.

We now turn to another aspect of the subject, viz., "Town Planning in Foreign Countries and Past Times."

This was taken by Professor S. D. Adshead, F.R.I.B.A., Professor of Civic Design in the University of Liverpool, in a series of four interesting lectures, plentifully and beautifully illustrated by lantern pictures.

Professor Adshead said there were two ways of looking at the town plan historically—(1) As a preconceived plan of ways and buildings; (2) as the outcome and expression of social substructure and growth. There was little of the first in ancient cities. Cities grew from isolated dwellings or from the parcelling out of land to colonists. The well-known gridiron or chequerboard arrangement was not a town plan at all, but merely the dividing up of a site into square lots for valuation purposes. This has gone on in all ages from the Greek colony of Selinus, 600 B.C., to Alberta in Canada, about four years ago. It could not, of course, persist with the developed and complex requirements of later times, and, though still quite evident in some ancient cities, it has more or less completely disappeared in others. In the American cities of rapid growth we see the difficult process of change now going on.

Professor Adshead said the question of formal or picturesque is entirely a matter of character. Both are necessary in their several ways, the first as expression of well-arranged system, essential to grandeur and ceremonial, the latter as an easy, natural human way of dealing with environment.

The parent cities of ancient Greece, as distinct from their individual buildings, were picturesque in arrangement, with narrow, irregular streets—the widest in old Athens was 15 ft.—but balance of parts was carefully studied and thoroughly understood. Note, for instance, the arrangement of buildings on the Athenian Acropolis. The colonial cities were laid out on more orderly and stately lines, and often outdid Athens in scale and grandeur, but not in refinement, being more commercial and luxurious. Professor Adshead, while showing a number of interesting slides of remains and restorations of Greek cities, of temples, theatres, gymnasia, etc., dwelt upon their constant everyday relation to and influence in the life of the citizens. The gymnasium, forerunner of the great Roman Thermæ, was a great congregating place, where people went to hear the orators and poets and the arguments of the philosophers, as well as to indulge their ardent passion for athletics and games and for the bath. The virile open public life, where all were in competition and subject to public and even personal criticism, eliminated incompetence; and this was reflected in their architecture and its sculpture, making it the highest achievement of the intellectual artist the world has known. Turning to Rome, we may not follow Professor Adshead in his masterly little sketch of why and how she became the metropolis of the world, and of her social structure and condition. Starting with the Empire, when untold wealth was piling up in her treasuries from conquered nations, we must confine ourselves to a few notes on the Professor's remarks upon her phenomenal development as a city of architectural splendour, even in her business buildings, on a scale more huge and grandiose than is easy for us now to conceive. This does not, of course, apply to her extent, as her population was only about a million, and closely packed at that. Professor Adshead confined his remarks to the Empire period, though, he said, Rome is architecturally interesting in at least four other phases.

The main ways followed the valleys between the seven hills. The oldest and greatest centre was the Forum Romanum, with the Capitoline on the one hand, with its great Temple, the stronghold of the spiritual power, and the Palatine on the other, with its palaces of the Emperors, the temporal powers. At the Rostrum in the Forum public votes were recorded, laws promulgated, announcements made, great lawsuits argued. In the Forum also were shops, banks, and exchanges. Earlier it had been the market place, and the scene of gladiatorial fights, but these had been relegated to other fora, and the Colosseum or Circus Maximus. Professor Adshead spoke of the huge Thermæ of Caracalla and many others, in which as many as 3,000 people bathed free at one time, also of the insulæ, or island blocks of the ramshackle, crowded dwellings of the people, which, as to-day, were the source of rich profits to speculators. The streets were usually 17 ft. wide; the widest was 22 ft. But, while the framework of Rome was irregular, the Romans were intensely formal in all their building schemes, adapting natural contours and carving hills to their devices.

Alluding to the country villas of Pliny and others, Professor Adshead pointed to the similarity in many ways of the life of Rome of the Empire to modern life. Her art was mainly the work of Greek artists, and thus did "captive Greece lead captive her captor Rome."

After the Dark Ages following the fall of Rome the cities of Europe were under the dominance of grand seigneurs or magnates of the Church, sometimes both; and Professor Adshead traced in the rise of the citizen and trade and the decline of the magnates the development of two notable groups of cities—(1) The great Republican cities of Italy, and (2) the cities of the Hanseatic League along the Rhine Valley to the Baltic, and in the low countries and England. The security of Rome was gone, and fortification was the necessary and dominant factor of lay-out in mediæval towns. Trade and fighting were the two great industries, not only against foreign foes, or citizen against magnate, but also citizen with citizen for lack of better; and towns were often as thick with refuge towers as the modern industrial town with factory chimneys. Street lines were often strategic, and, again, they often followed the winding course of the rural ways from the gates, as new lines of fortification encircled the old. In the XVIth and XVIIth centuries fanciful, conventional town plans began to be drawn, based upon the increasing intricacies of fortification.

With the Renaissance formal symmetrical arrangements begin, often of great splendour, like the Piazza del Popolo or Bernini's piazza in front of St. Peter's.

Professor Adshead devoted some time to the gradual formalising of mediæval Paris, from the creation of its great palaces and places by Louis XIV. and other monarchs, the work of the Commission of Artists appointed in 1794, and of Napoleon, to the demolitions and reshaping of its streets by Baron Haussmann.

He also touched on the reconstructive works of German Princes, as at Mannheim, Carlsruhe, Wiesbaden, etc., and on the oft-copied beautiful town planning of Nancy, and finally mentioned Covent Garden, by Inigo Jones, as the first piece of town planning in England.

In America, Professor Adshead says, town planning is now consciously turning from grandiose schemes of city embellishment to improvement of the conditions in which the mass of its city dwellers live. Taking New York as typical, he said those conditions were frightful congestion and terrible municipal arrangements. He described the great residential blocks ten stories in height, in which out of 100,000 tenements some 10,000 draw light and air from narrow enclosed areas only. On the other hand, he did not see the terrible poverty so evident in Europe. Now, however, there are great schemes in all the big cities to spread the inhabitants over the outlying areas and increase the park lands and playgrounds for the people.

In another picture of New York Professor Adshead depicted its unique site, its wonderful atmosphere, where the use of soft coal is absolutely forbidden, its immense wealth, the huge scale of its lay-out, and the grandeur, magnificence, and costliness of its buildings, in which it approaches ancient Rome more nearly than any other modern city. No city is more regular in plan, and yet no mediæval city is more irregular in effect. Its skyline is ragged, and there is no grouping.

The Professor referred to other big cities and their schemes, notably Washington, Chicago with its great scheme on paper, and Boston with its more practicable scheme; also to the great idea of the Park-way, already tackled by dozens of towns; and finally to the manifold suggestive charm of old American colonial towns.

A most interesting lecture was that of Herr Langen, Assistant Secretary, Berlin Town Planning Exhibition, on "The Progress of Town Planning in Germany." He described it as having survived a series of diseases, each of which was awarded exclusively a first prize in its time. Beginning with (i.) the conventional, Baroque, or juvenile disease, passing into (ii.) the diagonal disease, which degenerated into (ii.) the dismantling disease, when the demolishing of Paris and Cologne was imitated everywhere; (iv.) next the block or rectangular disease congenital in surveyors. The straight-line bacillus is common to all these, but, this developing curving symptoms, (v.) the worm disease set in, with nothing but wriggly-curved streets everywhere, suggestive of sensations on a rough sea, and the squeakings of unoiled tram curves. With a more severe reaction comes (vi.) the Zppelin disease, with its obsession of the pretty patterns of ladies' needlework. But now at length common sense begins to see there can be no beautiful and fitting garment, unless measurements are taken from the body. The new feature is scientific investigation of all conditions and phases of the town's existence, to collect and compare data on every point, to arrive at a uniform way of demonstration, and a technical phraseology, and to establish permanent museums of town study. This idea is to be forwarded at the Leipzig International Building Exhibition next year, to which Germans hope to draw a contribution from England.

Herr Langen illustrated his lecture by reference to plans prepared for the recent Düsseldorf Competition, in which he was part author of the design placed third, explaining its problems. He showed the framework of traffic roads, and its filling in, straight or curved, formal or informal, narrow or generous, in accordance with conditions and needs of each part. There is no need to aim at development on one method only.

Mr. Raymond Unwin, in his last lecture but one, took up this matter of the main framework of roads and its filling in. The Roman camp, he said, was one origin of the gridiron plan, with its two main streets crossing at right angles. This Roman type is seen again in the XIVth-century-planned towns of the Garonne Valley. In the late XVIth and early XVIIth centuries ideal town plans began to be made by Vasari, Scamozzi, and others with all lines in two directions, even the river being brought into parallel, but exhibiting great departure from the gridiron plan. Others show the same arrangement, but with diagonals arising from the influence of fortifications and the necessity of rapid movement from point to point. Following this comes the spider's-web plan, with main and secondary radiating roads from centre, and with many connecting roads square with the former.

Penn's plan for Philadelphia was laid out on gridiron system, but with breaks for centre and parks. Washington, the first really planned modern town, is an instance of superimposing a gridiron plan on a framework of diagonals; Chicago, of superimposing a diagonal frame on a gridiron plan, monotonously grown without form and void, hence giving rise to all sorts of awkward junctions and cutting-up of blocks. The right method is to begin with centre, next subsidiary centres and other points of emphasis, and then lay down the main framework and fill in details in relation to each part.

In his last lecture, speaking of the individuality of towns, Mr. Unwin instanced Rothenburg as a town of natural growth. Situated on a plateau above the River Tauber, its completely walled outline is determined by exigencies of fortification. There is hardly a definitely square angle or straight line about it, yet it has a clear frame and sense of proportion between parts. Its house walls of cream-tinted stone or plaster, its roofs of deep, rich tiles, and windows and shutters of bright green produce an effect of variety harmonised in a general sense of unity.

With this Mr. Unwin contrasted Carlsruhe, a formally-planned town on fairly level site, with streets, in the original plan, radiating away from the ducal palace at the centre. It is full of pleasing architecture and street pictures, in which perhaps the Schloss too

much predominates; and again the combination of cream-plastered walls, grey-slated roofs, and brightly-coloured woodwork produces a clear individuality of effect, combining variety in harmony, but this time attained by a system and style completely different from the first instance.

Mr. Unwin contrasted the successive town-planning schemes for Cologne—the first with its straight lines and star-shaped places, and results not too pleasing; Camillo Sitte's irregular system, with closed places and fine street pictures, but absence of frame. This last defect is still more marked in the Kupfstein plan and others. Contrast with such Munich, where irregularity of detail is combined with strong sense of frame.

German architecture, recovered from its "new art" disease, is developing a style based on their old Renaissance of great simplicity and dignity, which is forcing the plan into more regular lines.

Mr. Unwin showed a number of views of various cities—Lucca, Rheims, Nantes, Copenhagen, etc., illustrating various treatments and charming combinations in street and place; and of Turin, showing the beautiful grouping of buildings in the town, and with forest, mountain, and river beyond. Referring, too, to the view of Ephesus restored, and the splendid treatment of lay-out, making the most of the hilly site and natural beauty of scenery, Mr. Unwin said that it is in combinations like these, fulfilling also all practical requirements and purposes, that the ideal of the town-planner's art is seen.

In several walks round the suburb Mr. Unwin demonstrated many of the points treated of in his lectures. Visits were also made to Hampton Court, Westminster, Letchworth, the London County Council housing schemes at Tottenham, the London squares, and Greenwich.

Mr. Ewart G. Culpin, Secretary of the Garden Cities and Town Planning Association, delivered a lecture, entitled "Examples of Garden City Estates," on the first morning of the course. Unable through accidental circumstances to place it in its proper order, we give it a position of even greater vantage, where it may have the last word. We do so because Mr. Culpin lays special emphasis on an aspect of the subject which was at least touched upon by practically every other speaker—namely, the sociological aspect, which is of utmost importance, especially to those practically concerned as architect, surveyor, and engineer. However beautiful towns may be made with public buildings, noble streets, and open spaces, if town planning does not provide for a better home for the worker and opportunities for a fuller life for himself and his family it fails in its chief object.

Mr. Culpin sketched the growth of model communities from earliest times, showing photographs of schemes projected by Robert Owen, James Buckingham, Moffett, and others in the early XIXth century. Some very interesting particulars of these were followed by a complete series of lantern views of the experiments so far made in this country as a result of the Garden Cities and Town Planning Association.

Incidentally Mr. Culpin spoke of the housing of the workers at the new naval base at Rosyth. He thought it deplorable that a department of the Government which had passed the Town Planning Act should neglect this great opportunity to create a new model city at Rosyth.

We would contrast with this the great dock undertaking at Frankfort-on-Maine, with its garden suburb and parklands for the workers therein. And we would remind the shy folk mentioned at the beginning of our article last week that our German friends are not sentimentalists; they are wide awake to what it all costs, and what it is going to pay.

We agree; it is deplorable, and some other things like it. It is to the credit of the English town-planning movement that it had its inception in the movement to provide better houses and conditions of life for the poor. But if the Government that passed the Act neglects an opportunity to set the pace, is it greatly to be wondered at if local authorities, often with the dead weight of vested interests to hold them back, do not take up the running with more ardour?

GENERAL NEWS.

Professional Announcement.

Messrs. William Sprowson & Son, of Constantinople, have been appointed architects for the first three principal exchanges of the Constantinople Telephone System, the exchanges being situated in Stamboul, Péra, and Kadikeuy.

The Royal Sanitary Institute.

For some time the Council of the Royal Sanitary Institute have been urged to arrange an examination for smoke inspectors, and they have now decided to establish an examination in this subject. The syllabus includes those subjects with which it is necessary that smoke inspectors should be cognisant in order satisfactorily to carry out their duties, and a practical as well as theoretical knowledge of the administrative duties is required.

A Memorial to Miss Cons.

A friend of the late Miss Emma Cons has willed the house, Chippens Bank, Hever, Kent, and 26 acres of freehold land, to the nation in memory of Miss Cons. The house is now in the hands of the National Trust, and it is understood that the owner has endowed it. Chippens Bank is about 200 years old.

Maiden Castle.

At Dorchester recently Messrs. Whatley, Wing, & Bamford offered by auction, on behalf of Lord Alington, his Dorset estates of Woodsford Manor, Forston Grange, and Martinstown, aggregating 3,680 acres. The chief interest of the auction, says the *Times*, was in the offering of Maiden Castle, the largest and finest earthwork of its kind in the country. It is attributed to the Bronze or late Neolithic Age, and comprises about 107 acres of pasture, let to a farmer at 53*l.* a year. Mr. Alfred Pope, Fellow of the Society of Antiquaries, inquired what restrictions would be imposed on the user of the property. The auctioneers produced the document wherein, over four years ago, Lord Alington, under the Ancient Monuments Protection Acts, 1882 and 1900, appointed the Commissioners of Works as guardians of the Castle for the purposes of the Acts, and the Commissioners accepted the guardianship. The Commissioners, the auctioneers said, undertook to keep up the fences. Mr. Pope pointed out that the fences were not kept up, the Commissioners' notice-board was lying on its face, and nothing appeared to have been done for the preservation of the place. The property was started at 1,000*l.* and rose to 1,425*l.*, at which it was withdrawn.

The Preservation of Linlithgow Palace.

For the past two months work has been in progress at Linlithgow Palace, under the direction of H.M. Board of Works in Scotland, and much work has been done in buttressing and protecting the ancient building. The work being carried out has been directed to the part known as the King's Kitchen and parts connected therewith, also the doorway or porch leading to the quadrangle, and at other parts the pointing of walls and renewal of decayed portions of the building has received attention. The operations have been in charge of the Government Department itself, which has employed local labour.

CORRESPONDENCE.

The Monumental Mason.

SIR,—Your article on "The Monumental Mason" was timely, and pleasant reading, too. However simple a gravestone may be, it may, and should be, worthy of real artistic expression; it may at least have good lines and good proportions; if good ornament is debarred by cost, the art of "what to leave out" may at least be indulged in. No sculpture is preferable to bad sculpture; sham and meretricious ornament is both costly and offensive. The true monument should be a memorial of the dead, and not as an advertisement of the name of the maker. I have always made a strong point in resisting this, not only because of its unseemliness and vulgarity, but because of its dishonesty; an advertisement "on the cheap," and certainly in the wrong place; often used on what should cause shame rather than acknowledgment. E. SWINFEN HARRIS, F.R.I.B.A.

The Single Tax.

SIR,—Personally, I do not think the "Single Tax" theory is at all likely to make much headway, but I am convinced that there is much to be said in favour of taxing land values. The present system would be considered farcical were it not stale by custom. . . . It can be matched in every town in the country and in thousands of instances, but I am speaking from my own knowledge. A certain business outgrew its original premises, and larger ones had to be sought. A suitable site was available. Although within the borough boundaries, it was rated as agricultural land and paid, as such, a merely nominal sum towards the upkeep of the town. It was purchased at a figure running into hundreds of pounds per acre and new works erected. As a penalty for adding to the wealth of the locality and providing remunerative labour for some of its inhabitants, the local authorities promptly clapped on a rate to the full value. A year or two after, the business having increased, the same landowner was approached with a view to purchasing more land. His price was now 50 per cent. higher than at first, but the land was purchased and the local authorities behaved as before. Notwithstanding these handicaps, more land was, shortly after, deemed to be a necessity, and the price was again raised; its value, in the opinion of its owner, having just doubled in five years, and this without his having spent a penny upon it; the local authorities meanwhile being content to rate it as of the value of agricultural land. Now . . . by the laws and customs of this country, the landowner was enabled to take toll of the necessities of industry and place a permanent burden upon a promising business that, when hard times came, was found to be a severe handicap. . . . Is not one compelled to advocate some alteration in the law that makes such things possible? Land is not a mere commodity. It is as indispensable to all industry as the daylight or the atmosphere, and should never have been allowed to become private property.

The scheme for taxing land values seems to open out a way of remedying, to some extent, this unjust state of things and, far from inflicting injury on the building trade, I look for enormous improvement as soon as it is made effectual. Most certainly, if a tax of only a few pence in the pound were placed upon the enormous site values in the wealthier parts of London and other large towns, very many of the obsolete buildings that now encumber these sites and disfigure localities would at once be demolished, and worthier ones erected to take their places, to the great benefit of the building trade. I do not think that the ruthless expropriation of the retired tradesman, doctor, widow lady, and fatherless family, so feared by Mr. Cloriston, is at all likely to take place. What has to be paid by them in a tax on land values will be more than recouped by the saving in rates; besides, those who advocate this new departure are, after all, English. As to faith in the stability of our institutions, surely this is likely to be increased rather than be shattered, if the said institutions are based upon justice as well as common sense and common honesty. WM. F. WALLIS.

Maidstone.

The College Gateway, Worcester.

SIR,—In your issue of August 16 is a statement to the effect that "conjointly with Mr. W. H. St. John Hope, Mr. R. F. Wells designed and executed in terra-cotta" a series of figures that has just been set up on the College Gateway at Worcester.

Will you please allow me to state that I am not in any way responsible for the new figures, and that my name ought not to be associated with that of Mr. Wells as having acted "conjointly with him in their design or execution" in any way?

I did give Mr. Wells some amateurish help, at the earnest request of Canon Wilson, in converting his clay models of friars into their more proper guise as Benedictine monks, and I pointed out to him certain inaccuracies of episcopal vestments which are still conspicuous in the finished terra-cotta figures, but that is the whole of my "conjointing."

W. H. ST. JOHN HOPE.

ILLUSTRATIONS.

Sketches with the Architectural Association.

THE excursion of the Architectural Association was made this year to Shropshire, the headquarters being Shrewsbury, and the whole of our inset plates this week are devoted to illustrations, made from sketches by Mr. Sutton Wood, of buildings visited, and an account of these and other buildings will be found on p. 224.

MEETING.

SATURDAY, AUGUST 31.

The Institute of Sanitary Engineers.—Northampton centre. Arrangements have been made for a visit of members and friends.

COMPETITION NEWS.

A list of current Competitions is printed on page 242.

Huddersfield Town Planning Competition.

The Secretary of the Royal Institute of British Architects asks us to state, for the information of Members and Licentiates, that the Competitions Committee are in communication with the promoters of this competition with a view to the amendment of the conditions.

Constables' Houses, Ayr.

Members and Licentiates of the Royal Institute of British Architects are informed that this competition has been vetoed by the Glasgow Institute of Architects on account of the unsatisfactory nature of the conditions.

MAGAZINES AND REVIEWS.

IN the *Burlington Magazine* Mr. Lionel Cusp writes of the sculptures of the Parthenon. The Elgin marbles were purchased for the nation in 1816 at a cost of 35,000*l*. It is curious that the artists gave conflicting evidence to the Committee appointed to decide as to the purchase of the collection, for whilst Benjamin West, who was then President of the Royal Academy, was enthusiastic and set their unique beauty above pecuniary assessment, Richard Payne Knight, a leader in the amateur art coterie of the day, condemned them as less in rank than the Laocoon and Apollo. A century has vindicated Benjamin West's taste. The occasion of Mr. Cusp's article is the publication of "The Sculptures of the Parthenon" by A. H. Smith.

We mention this article chiefly because of the mere presence of these sculptures in England to-day. Why are they here instead of in Greece? For ourselves we are grateful to Lord Elgin, but his memory is equally execrated in Athens. Has anyone written on the morality of removing sculpture from existing monuments?

An article, translated from the German of Willy F. Storck, on "Aspects of Death in English Art-Poetry" also appears in the *Burlington*. If a certain youthfulness and joyousness may be observed in mediæval life, "Death appears and pronounces admonitions to cherish the soul's health." The article is illustrated by several illustrations of gruesome aspect, and should be interesting to the mind of the antiquary and historian. Most of the paintings were intended to produce a didactic effect on the faithful, and thus had other than artistic ideals. But these "aspects of Death" also found expression in stone on our cathedrals —often forceful and terrible as didactic work must be. The study of these "aspects" is useful to temper the too sweetness of Tennyson's or Morris's mediævalism.

In the same magazine Sir Claude Phillips makes out a strong case for the attribution of the "Temperance," of the Diploma gallery at the Royal Academy, to Palma. The picture is labelled "Giorgione," but critics fathered it here and there, as happens so often nowadays. Whether this attribution is final remains to be seen. The picture is a fine one, simple in composition, with all the characteristics of the Venetians and particularly those of Palma, as Sir Claude Phillips points out.

Articles on the Italian Sculpture at the Burlington Fine Arts Club by Mr. A. M. Daniel, and in continuation of the series on Early Furniture, by Mr. Aymer Vallance, F.S.A., are also contributed.

A reproduction of a fine painting by Jan Vermeer, of Delft, showing a view of that city forms the frontispiece to the *Connoisseur*. Mr. M. H. Spielmann contributes an article on "Pictures of Picture Galleries," one of the illustrations of which shows the interior of the British Institution, Pall Mall, by J. Scarlett Davis, a painter who lived in the first half of the XIXth century. The other illustrations are the pictures which can be seen in little in the view.

"Liverpool Potteries and Their Productions," by Mr. H. G. C. Day, and the third article on the London Museum, by Miss Ethel M. M. McKenna, also in the *Connoisseur*, are well worth perusal. Dr. G. C. Williamson's note on Jean and Pierre Condé points out that the engravers were brothers, not father and son, as is commonly supposed. These articles are all well illustrated. There is also a good colour reproduction of a picture by the Rev. M. W. Peters of "Mrs. Page and Mrs. Ford Reading Falstaff's Love Letters."

The *Antiquary* notes several exhibitions of Egyptian antiquities. Among the finds is mentioned a monolith alabaster sphinx, 27 ft. long and 14 ft. high, which was excavated at Memphis. It weighs about 80 tons, and was by "its very size precluded from being removed from Egypt." Moral sensibilities do not seem to have troubled the archæologist who found it. However, it is to remain in Egypt and will be placed in its true position, where it will become one of the sights of the country, being second in size to the great Sphinx itself. The same magazine contains the beginning of an article on the ornament called "Honeysuckle," the beauty and value of which can scarcely be overestimated. The writer at the outset quotes from Fergusson, who says:—"It is perhaps the most beautiful and perfect of ornaments derived from vegetable-forms, which the Greeks borrowed from the Assyrians, but made so peculiarly their own." We remember ourselves the surprise caused by the first look at this ornament, an example from the Erechtheum, with a mind biassed by a long study of Gothic ornament. Its delicacy of design, its freshness, the wonderful cutting, the beauty of the material itself combined to open up a new vista in art. The writer shows how the Greeks used this ornament, as Stela, as Antefix, or as Frieze. The concluding part will trace its early history before it was introduced into Greece.

An article by Mr. Arthur E. P. B. Weigall in the *Nineteenth Century* may be noticed familiarly in these pages. It is called "The Morality of Excavation," and is an answer to the often-repeated question, "Why is it that the excavation of ancient tombs is permitted?" So there are people to whom it is an offence that Egyptian tombs should be excavated just as there are those to whom vivisection appears a crime. Yet to defend either practice on moral grounds is difficult, for the first, after all, amounts to desecration, and the second seems to inflict pain, which in itself cannot be defended, on dumb animals. Is it right to do evil that good may come of it? Mr. Weigall himself admits that his arguments may be considered "to be those of a casuist, as no doubt they will be by a certain class of readers." But to produce his arguments:—"The careful opening of an ancient Egyptian sepulchre saves for science information and antiquities which otherwise would inevitably be scattered to the four winds of heaven by native plunderers. In spite of the strenuous efforts of the Department of Antiquities, a considerable amount of robbery takes place. . . . Tombs are rifled, coffins are broken open, mummies torn to pieces in the search for gold. . . . It will be easy for the reader to picture in his mind the disorder of a plundered tomb. There lies the overturned sarcophagus, there sprawls the dead body with the head rent from the shoulders, there are the shattered remains of priceless vases. . . . It is as though the place had been visited at full moon by demented monkeys." He compares this procedure with that of the trained Egyptologist who records in every dimension, with notes, photographs, and drawings, every tomb he opens, who handles everything he touches with knowledge, and who in his dealings with the dead observes "a rough decency." "Which, then, is the better course: to leave the tombs to be rifled by ignorant thieves, or to clear them of their contents in an orderly manner?" Whether, we should like to add, would one have one's house burgled by some scientific "Raffles" or by a mere tramp? We should have thought it infinitely less expensive to guard the tombs adequately than to excavate them, had it been thought advisable to do so. That is the first argument. The second proceeds that if no illegal robbery were to be feared, can it be justified—thus to tamper with oblivion? The writer shows how practically the great part of our knowledge of the history of ancient Egypt has been gained from the tombs which are gathered together, but a little apart from the living, in cities given over entirely to the dead—cities whose austere sterility are in such woeful contrast to the fertility of the Nile Valley. For no blade of grass or green leaf breaks the aridity of the limestone barriers of Egypt, where the dead of countless ages sleep. From the sepulchres all articles of domestic economy have been taken, "beds, chairs, tables, boxes, chests, vases, utensils, weapons, clothing, jewellery, and so forth"; indeed, all such objects that we see in museums have this source. So that without excavation we should be so much poorer in our knowledge of an antique race. So much for arguments which do not seem to bear very close inspection. The writer, however, gives the real gist of the matter when he says:—"The study of Egyptology is a political necessity, and for this reason alone the tombs must be opened and their contents recorded." He quotes from a letter of Lord Cromer:—"'Incidents in ancient history frequently brought to my mind the facts with which I had to deal during my tenure of office in Egypt.'" That is perhaps sufficient. For the rest the article gives an extremely interesting account of the procedure of the trained archæologist.

BOOK RECEIVED.

THE CATHEDRALS AND CHURCHES OF ROME AND SOUTHERN ITALY. By T. Francis Bumpus. (London: T. Werner Laurie. 16s. net.)

FIFTY YEARS AGO.

From the *Builder* of August 23, 1862.

An Underground Railway for Paris.

WHEN the Prince Napoleon was in London lately he went over the underground line; and on his return to Paris he reported so strongly in favour of it that the Emperor has already, it is said, ordered a subterranean line from Montmartre to the Louvre, to be commenced forthwith, and has appointed Mr. Fowler consulting engineer to the undertaking.

*** When the above was written the London Metropolitan Railway was not quite ready to be opened to public traffic; only the first section (from Bishop's-road to Farringdon-street) existed, and it was popularly regarded as a somewhat sensational work. The Montmartre-Louvre Line was not constructed, but the Underground Railway idea was taken up with some enthusiasm in Paris. Now the French engineers have travelled far; the Paris Metropolitan alone, which was inaugurated in 1900, has in the fourteen years or so that have elapsed since the works were begun, dealt with the construction or survey of about 90 miles of line, in the course of which many and varied difficulties have been overcome. As instances we may recall that, in the branch under the Orléans Railway, the tunnel works were protected from the inflow of water from the Seine by freezing the ground so as to form a tube of ice some 70 yds. long, and that, in recent tunnels across the Seine, a somewhat novel method of construction was used, the cast-iron segments of the lining being sunk into the river bed and there jointed together by external concrete patches, the water being then pumped out and the permanent metal connexions made. This method avoids some of the risks of working with "shields," and allows the tunnel to be much nearer the surface than would otherwise be possible.—ED.

A NEW MODELLING STUDIO.

The advantages of the architectural model in representing a proposed new building or addition to an existing structure are obvious, and we may call attention to some examples at the Gray's Inn Modelling Studio, at No. 28, Gray's Inn-road, Mr. S. Lloyd Young being the principal. The firm have an atelier at Shortlands, Kent.

GATEHOUSE: MADELEY COURT

SHIPTON HALL.

WILDERHOPE MANOR.

PHOTO-LITHO. SPRAGUE & Co LTD 69 & 70, DEAN STREET, SOHO, W.

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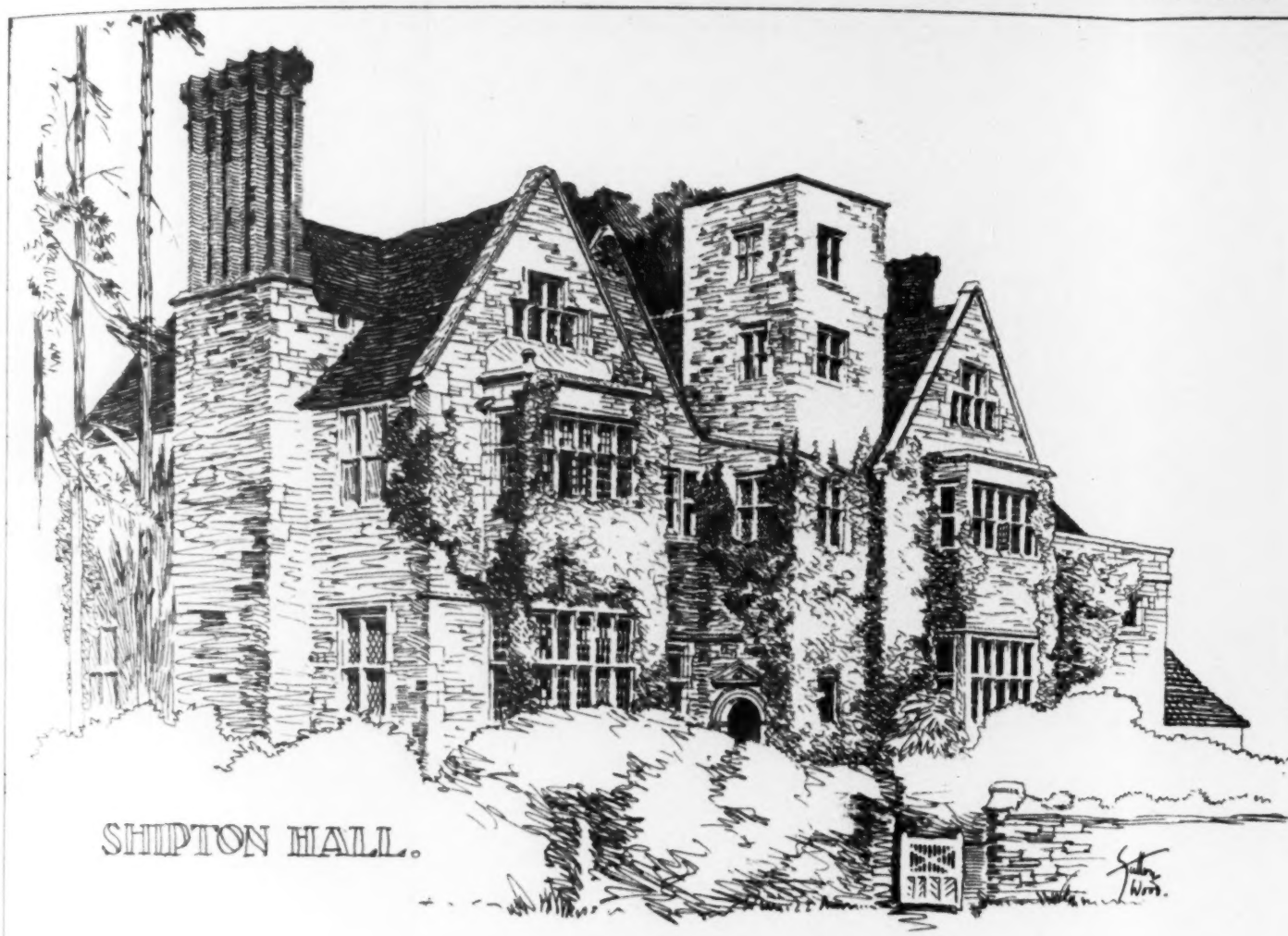


SHIPTON HALL.

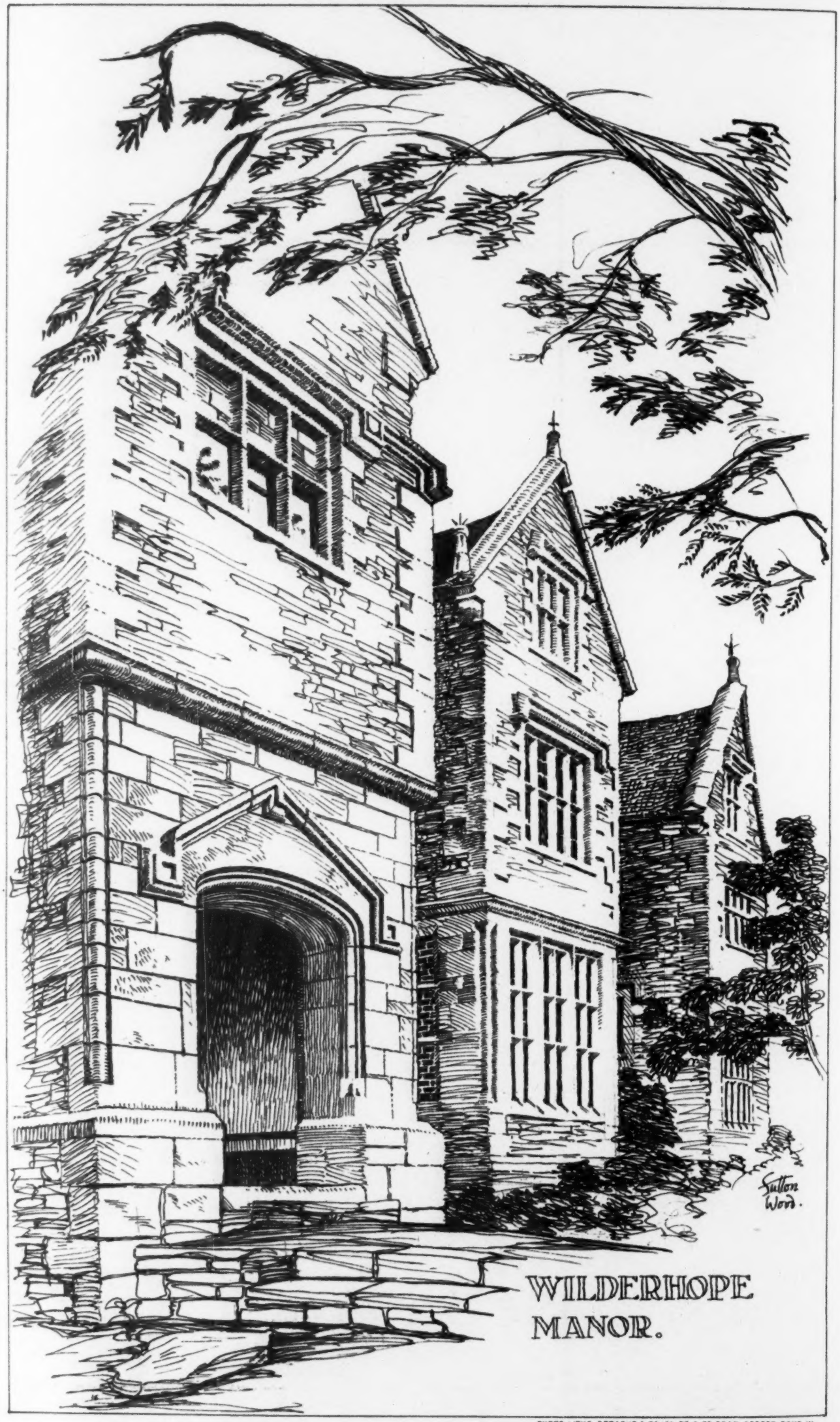
WILDERHOPE MANOR: WEST SIDE.

GATEHOUSE: MADELEY COURT

PLAISH HALL.

PHOTO-LITHO. SPRAGUE & Co LTD 69 & 70, DEAN STREET, SOHO, W.

CTURAL ASSOCIATION EXCURSION.—By Mr. Sutton Wood.



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SKETCHES WITH THE ARCHITECTURAL ASSOCIATION EXCURSION.—By Mr. Sutton Wood.

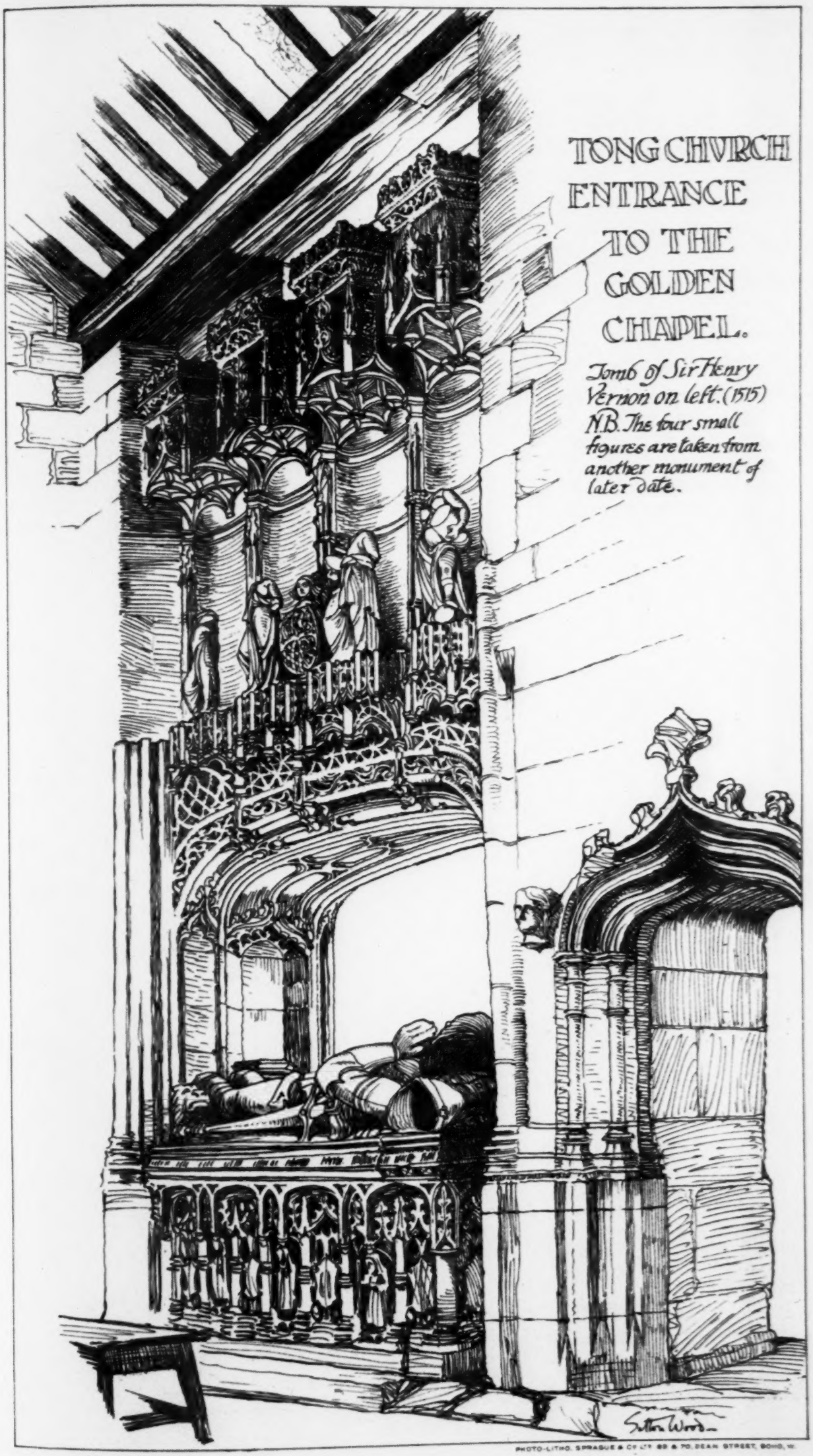

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PHOTO-LITHO. SPRAGUE & Co LTD 69 & 70, DEAN STREET, SOHO, W.

SKETCHES WITH THE ARCHITECTURAL ASSOCIATION EXCURSION.—By Mr. Sutton Wood.

WHITEHALL SHREWSBURY

GATEHOUSE AT LANGLEY

STABLES
PRESTON BROCKHURST

PHOTO-LITHO SPRAGUE & CO LTD 69 & 70 DEAN STREET SOHO W

SKETCHES WITH THE ARCHITECTURAL ASSOCIATION EXCURSION.—By Mr. Sutton Wood

STOKESAY
CASTLE FROM CHURCH TOWER

SKETCHES WITH THE ARCHITECTURAL ASSOCIATION EXCURSION.—By Mr. Sutton Wood.

PHOTO-LITHO SPRAGUE & CO LTD 69 & 70 DEAN STREET SOHO W

MONTHLY REVIEW · *of* · ENGINEERING.

The London and South-Western Bank, Gracechurch-street and Fenchurch-street, E.C.

Mr. Edward Gabriel, A.R.I.B.A., of Messrs. Edmeston & Gabriel, Architect.

THE HEAD OFFICE OF THE LONDON AND SOUTH-WESTERN BANK.

IN our issue of August 9 illustrations and a description appeared of the new building in Lombard-street for the Royal Insurance Company. A short distance away another imposing building has been completed recently, and, as will be seen by the accompanying reproductions from photographs, the Head Office of the London and South-Western Bank is worthy of its purpose. Mr. Edward Gabriel, A.R.I.B.A., of Messrs. Edmeston & Gabriel, was the architect, and the bank was opened officially by the Lord Mayor in May. Unfortunately, plans are not available; but the illustrations, with the subjoined particulars, will give a fair idea of the building.

The first portion of the bank, consisting of Nos. 168, 169, and 170, Fenchurch-street, Nos. 68, 69, and 70, Gracechurch-street, and Ingram-court, was built in 1886.

In 1904 Nos. 171, 172, and 173, Fenchurch-street was added to the bank property and rebuilt, and in 1909, the directors, having acquired Nos. 66, 67, and 71, Gracechurch-street, the whole of the important site at the junction of Fenchurch-street, Gracechurch-street, and Lombard-street, comprising an area of 11,000 ft. super. with a total frontage of 220 ft. towards Fenchurch-street and Gracechurch-street and 100 ft. towards Ingram-court, became available for banking purposes. The premises have now been remodelled and rebuilt on this extensive site. The work has been carried out in sections under considerable difficulties, as the business of the bank has had to be carried on without interruption, and a large number of tenants occupying the upper parts of the buildings have remained in occupation during the progress of the works.

The front elevation is in Portland stone, with a polished granite base to the height of the ground-floor window-sills.

The whole of the ground floor is occupied by the banking hall. The main entrance is at the corner opposite Lombard-street, with a subsidiary entrance in Gracechurch-street, which also forms the entrance to the upper floors of the building. There is a separate entrance to the foreign branch in Ingram-court.

The basement and sub-basement contain strong-rooms, store-rooms, cloak-rooms, and lavatories, heating apparatus, and also a pump-room in connexion with the artesian well which has been sunk on the site.

The first floor contains the general manager's rooms, conference-rooms, waiting-rooms, accountants' branch loans and inspection, board-room and ante-room, secretary's department, and a large number of private offices.

The second floor contains solicitors', trustees', and inspectors' departments, and this floor together with the third floor contains a large number of tenants' offices with ample lavatory accommodation.

The fourth floor contains a large dining-room, smoking-room, kitchen, scullery, and offices, housekeeper's apartments, and tenants' offices.

The whole of the banking-hall fittings and screens have been specially designed by the architect, and have been carried out by Messrs. Hibberd Bros.

The marble lining to the walls of the banking hall and the Scagliola columns were carried out by Messrs. Bellman, Ivey, & Carter, Ltd. The walls above dado height are covered with carefully-selected "Arni Alto." The Scagliola columns (of which there are over thirty) have the shafts divided by bronze annulets. The enriched Ionic capitals were also modelled and cast by Messrs. Bellman, Ivey, & Carter, Ltd., and are bronzed with pure copper by their special process. The whole of these columns were cut and fixed round steel stanchions without showing joints.

The Acme Flooring and Paving Company laid the banking hall, dining-rooms, and offices with Duffy's patent "Immovable-Acme" wood-block flooring in 1¼-in. oak, D quality. This flooring has been supplied and laid by the company in nearly fifty branches of the London and South-Western Bank.

The main staircase is of marble, carried out by the Art Pavements and Decorations, Ltd.

The London and South-Western Bank, E.C.: The Banking Hall.

Mr. Edward Gabriel, A.R.I.B.A., Architect.

The treads and risers are of Sicilian marble, the handrail and plinth of Grand Antique, and the balusters of Pavonazzo. The dado is a Tinos green, with moulded capping and skirting in Grand Antique, with overwall in Arni Alto fixed ashlar. The columns and pilasters are in Greek Cippolina.

Two of Messrs. Waygood's lifts are installed in the building, one an electric passenger lift to take 15 cwt. or ten persons at 300 ft. a minute through a travel of 65 ft. 6 in. The control of the lift is by a car switch and self-centring detachable handle in the cage, as on the tube. The lift is also fitted with a special slowing-down device and patent automatic cut-off current in the event of the lift exceeding the travel at top or bottom. There is also one hydraulic book lift, travel from basement to ground floor, and constructed for a load of 10 cwt. This lift is worked by hydraulic power from the mains of the Hydraulic Power Company.

Heating is obtained by means of low-pressure hot water with accelerated circulation. The apparatus has been supplied by Messrs. J. Jeffreys & Co., Ltd. The mechanical circulation is effected by means of a motor-driven centrifugal pump.

The work of the British Luxfer Prism Syndicate, Ltd., included patent roof glazing to the covered way, gunmetal frames in doors, and fire-resisting glazing in doors and screens.

Messrs. Ewart & Son, Ltd., executed the copperwork on the dome, the roof, the flats, and elsewhere through the building.

The sanitary fittings were supplied by Messrs. J. Tylor & Sons, Ltd.

Among the other sub-contractors were the following:—Messrs. Richard Moreland & Sons (constructional steelwork and floors); Messrs. Spital & Clark (counter grilles and cashiers' desks); Messrs. G. & A. Brown (ornamental plasterwork); Messrs. Milner & Co. and Messrs. Chubb & Sons (strong-room doors, safes, and strong-room fittings); Messrs. Fenning & Co. (granitework); Messrs. Mossop & Co. (electric light and bells); Messrs. Chas. Smith, Sons, & Co. and Messrs. A. Jones & Co. (ironmongery); Messrs. Crittall & Co. (metal casements and steel cupboards); Messrs. Richardson & Co. (metal shelving); Messrs. John Hall & Sons (glazing); Messrs. Alfred Williams & Co. (artesian well and pump); Messrs. Merryweather & Sons (hydrants and fire appliances); Messrs. Brawn & Co. (bronze name-plates); Messrs. Pridmore & Co. (ornamental balustrading); Messrs. Strode & Co. (lift enclosure); the Albion Iron Company and Messrs. Thos. Elsley & Co. (stoves and mantels); Messrs. Benham & Sons (cooking plant); Messrs. H. W. Cashmore & Co. (ceremonial key).

The whole of the rebuilding has been carried out by Messrs. Howell J. Williams & Co. Mr. Peacock has acted as clerk of works.

DANGERS ATTENDING DEEP EXCAVATION.

In our "Notes" of March 13 and July 10, 1909, we commented upon the disastrous failures connected with excavation works at Birkenhead and Newport docks, and on the latter date suggested the desirability of official inquiry into the question generally.

The Report has just been issued of the Home Office Departmental Committee appointed in 1909 to "inquire into the dangers attending deep excavation in connexion with the construction of docks and similar works." This Committee included Mr. H. J. Wilson, one of H.M. Inspectors of Factories, Mr. C. A. Harrison, D.Sc., of the North-Eastern Railway, and Mr. W. W. Squire, M.Inst.C.E., of the Bristol Docks Committee.

Fortunately, there have not been many serious collapses of timber-work structures in excavations such as those made at Birkenhead and Newport. This fact in itself had the effect of handicapping the Home Office Committee in their inquiry. The only statistics available relative to fatal accidents are those furnished to the Committee by various contractors and one dock authority. The figures cover a period of about twenty years, and show an analysis that the deaths due to the failure of trenches or dams represent about one-third of the total number of fatalities in or about works of the class in question.

After due consideration the Committee have not found it practicable to make any special recommendations for the design of timbering in deep trenches. This is but natural, for the forces to be resisted and the dangers to be guarded against vary from case to case, and in consequence it is impossible to formulate any standard series of designs.

Moreover, as the work of excavation proceeds, the conditions may change and demand important modifications in the original design, or it may be that the entire scheme of temporary works will have to be considered *de novo*. Therefore, so far as general design and construction are concerned the engineer or the contractor must remain responsible.

The definite recommendations put forward in the report are of minor character, but at the same time they are not without importance, and in our opinion the official establishment of regulations based on the proposals of the Committee would have a distinctly useful effect.

As a matter of convenience we summarise the recommendations briefly as follows:—

Wherever practicable, the edges of excavations and gangways shall be guarded by hand-rails or fences, and skirting boards shall be provided to prevent material from falling down to the bottom and causing injury to men.

A sufficient number of ladders shall be provided to enable the men to escape in case of emergency.

Ladders shall be arranged with hand-holds extending at least 3 ft. 6 in. above the surface of the ground, and shall be lashed with chains rather than with ropes.

Adequate artificial lighting shall be used during hours of darkness.

Existing regulations under the Factory and Workshop Act dealing with the use of electricity, the annealing of chains, and the examination of steam boilers shall apply to deep excavations.

Adequate ambulance appliances shall be provided.

Trenches shall be inspected in detail by a competent person once a day, and a register of this inspection shall be kept which shall be open to the inspection of H.M. Inspector of Factories.

The use of explosives shall be controlled by regulations given in the Report, and which are based on the rules already applying to quarries.

After blasting in timbered excavations, all loose material deposited on struts and horizontal surfaces shall be swept down and the timber shall be examined.

A curious point in connexion with engineering work of the character dealt with in the report is that they are not governed in any way by the various Acts relating to accidents and inspection.

The Factory and Workshops Act of 1901 does not appear to apply to machinery outside buildings erected for the purposes of dock construction, and the Notices of Accidents Act of 1894 has been modified so that accidents occurring in the construction of a harbour, dock, port, pier, or quay need not be reported to the Board of Trade as originally enacted.

NEW YORK SEWAGE DISPOSAL.

THE third Report of the Metropolitan Sewerage Commission of New York relates to the collection and disposal of sewage of the Jamaica Bay district.

In their two preceding Reports, the Commission recommended the subdivision of New York into sewage districts in order to facilitate the design for an efficient system of main drainage.

The proposal is that the sewage of each district shall be dealt with separately, with provision for combining the systems in case this should appear to be desirable at any future time.

In the Report now issued the scheme for the Jamaica Bay section is described and illustrated by plans.

Jamaica Bay, as our readers may be aware, is a land-locked arm of the sea on the south of Long Island, and its shores are occupied by holiday resorts such as Rockaway Beach and Coney Island. Its waters are devoted mainly to bathing, boating, and the cultivation of shellfish.

It is highly probable that the character of Jamaica Bay will be radically altered not only by the system of sewage disposal proposed by the Commission, but also by the contemplated use of the bay as an additional ocean harbour for New York.

So far as drainage is concerned, it is proposed to collect sewage by the separate system as far as possible, with allowance for the inflow of ground water. In places where the sewers are designed on the combined system the dry-weather flow only will be intercepted, with storm-water overflows above the points of interception.

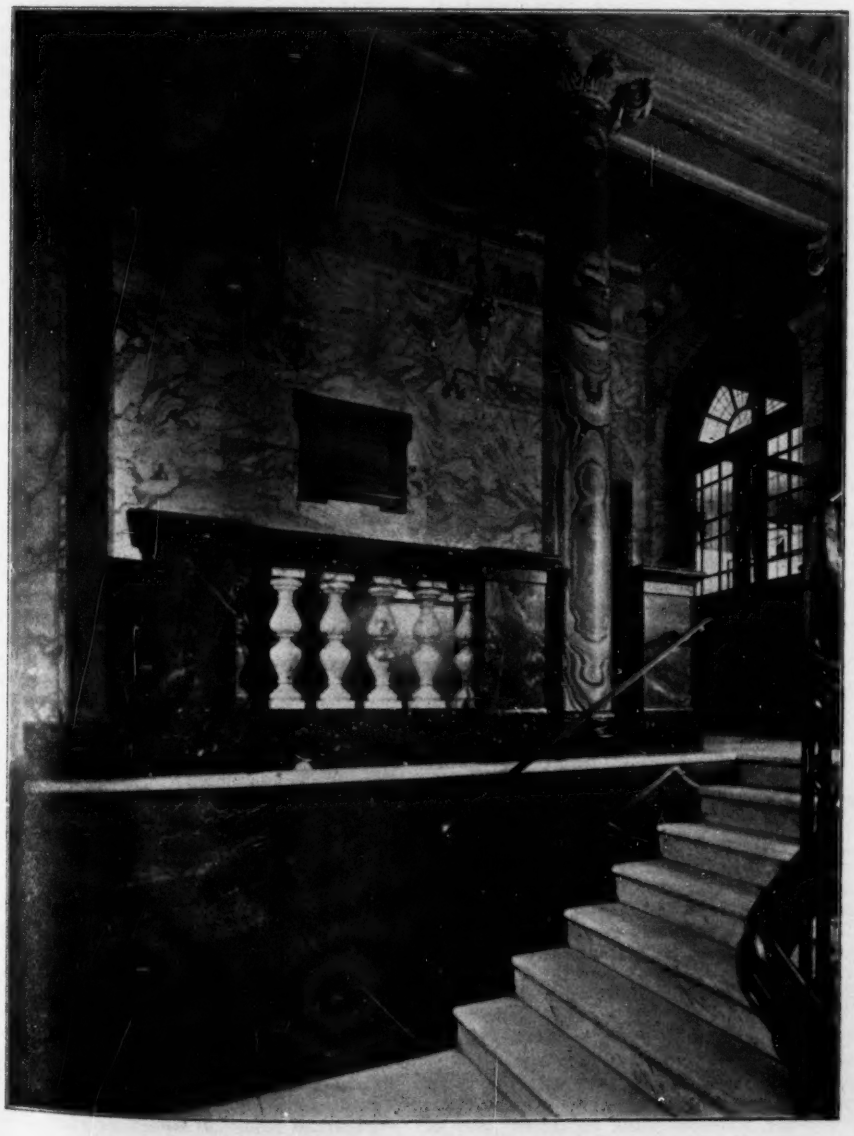
Thus, for a considerable proportion of every year vast quantities of crude sewage will be discharged into the bay, and even the sewage intercepted in dry weather will not be treated so as to insure thorough purification.

The sewage disposal works foreshadowed in the Report merely include sedimentation tanks, sprinkler filters, and settling basins, and the sludge will either be used to fill in marshland, or "dumped at sea," the latter alternative being obviously the only one that ought to be seriously considered.

The proposals relative to the development of the bay as a second harbour for New York emanate from the Jamaica Bay Improvement Commission appointed by the United States Government and the Municipal Council of New York.

Plans have been officially adopted, and money appropriated for the formation of a substantial and regular water front, deep-water channels for ocean steamers, harbour approaches at Jamaica inlet, and canals, each from 300 ft. to 400 ft. wide and from 4,500 ft. to 12,000 ft. long, for development of the water front. The object of these works is to provide for the establishment of what will virtually constitute a large new seaport.

The development of the bay in this manner must ultimately cause pleasure seekers to find some more secluded resort, and the shellfish industry will also have to go, especially in view of the crude arrangements at present contemplated for the treatment and disposal of sewage.



The London and South-Western Bank, E.C.: Main Staircase. First Floor.

Mr. Edward Gabriel, A.R.I.B.A., Architect.

INTERLOCKING REINFORCED SLABS.

AN invention relating to the application of reinforced concrete in maritime engineering, irrigation works, and for other purposes, has recently been introduced by the Patent Interlocking Slab Company, of Oakley House, Bloomsbury-street, W.C.

The slabs are of reinforced concrete with overlapping or interlocking lugs, forming tongued and grooved connexions between adjoining slabs. All the interlocking projections are perforated vertically so that when several slabs have been assembled they can be locked together by mean of a cylindrical pile or column.

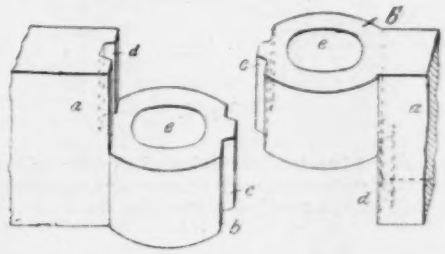


Fig. 1. Interlocking Slabs.

Fig. 1 shows in perspective the adjacent interlocking ends of two slabs—*a* is the body of the slab; *b* and *b'* are the interlocking projections, each with a tongue *c* locking into the groove *d*; and *e* is the vertical perforation in the projecting part of the slab.

The slabs can be reinforced in any suitable manner to suit requirements, and the projections perforated for piles or columns of any required cross-section.

If desired, the upper and lower faces of the slabs can be ribbed, grooved, or recessed to make sound horizontal points, and the slabs can be moulded of any length, height, or shape.

It will be seen, therefore, that the invention provides for all reasonable variations of construction, and, as no restriction is made by the patentees as to the system of reinforcement to be adopted, the slabs can be designed by any reinforced concrete specialist or independent engineer.

Fig. 2. Elevation of Typical Groyne.

Fig. 2 illustrates part of a groyne constructed with interlocking slabs, some keyed together by means of piles, and others by columns with ordinary footings.

Fig. 3 shows three methods of applying the slabs in the construction of sea-walls. If the soil is firm, the wall can be carried by a footing of plain concrete, as shown in the first section. If the soil is of unstable character, the employment of piles is recommended in accordance with the second and third sections. It will be noted that the slabs form a watertight lining behind the masonry of the wall.

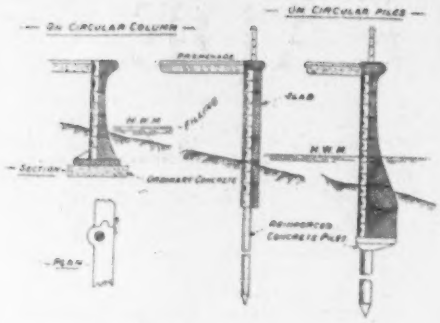


Fig. 3. Typical Sections as applied to Seawall Slabs supported by Reinforced Concrete Piles.

The slabs can be similarly used in the construction of river training walls, canal banks, dams, and kindred structures.

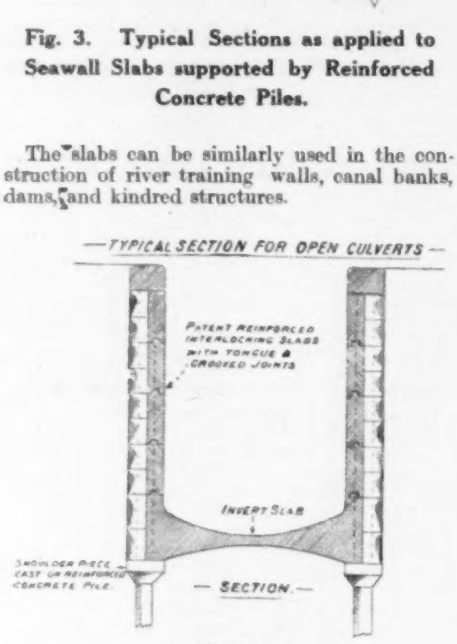

— TYPICAL SECTION FOR OPEN CULVERTS —
PATENT REINFORCED INTERLOCKING SLABS WITH TONGUE & GROOVED JOINTS
INVERT SLAB
SHOULDER PIECE CAST ON REINFORCED CONCRETE PILE
— SECTION —

Fig. 4.

Fig. 4 is a typical section of an open culvert carried upon reinforced concrete piles, the culvert walls being formed of interlocking slabs, and the invert moulded in one piece. If desired, the culvert can be built upon columns above ground level so as to form an aqueduct.

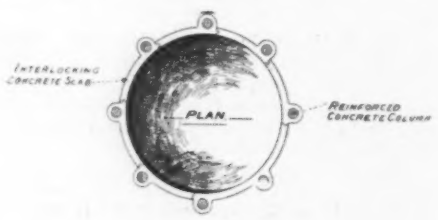


Fig. 5.

Fig. 5 represents interlocking slabs of curved shape for chimney-shafts or for shafts of any kind below the surface of the ground.

The foregoing illustrations will serve the purpose of indicating some of the many uses to which this ingenious invention can be applied in constructive work.

ENGINEERING NOTES.

The British Fire Prevention Committee's Tests.

Reinforced Concrete Floor Test.—The British Fire Prevention Committee undertook some supplementary loading tests with a reinforced concrete floor (submitted by the United States Steel Products Company) which had been under fire and water test on July 24th last, the fire and water test having been a four-hour one, and the standard of "Full Protection" Class B having been obtained. "Triangle mesh" was used as reinforcing material. The centre bay of the floor, measuring about 15 ft. by 7 ft. and being 5 in. thick, was to be loaded to 5 cwt. per foot super., and records were to be taken of the deflection at certain intervals, the object of the test being to show that a floor of this type is still serviceable after a severe fire. The tests were conducted by a sub-committee under the direction of Mr. Max Clarke, F.R.I.B.A. During the afternoon various other materials which had been under fire test during July were also exhibited

Results of Tests.—The British Fire Prevention Committee announce that a series of fire tests with the flame-proofing of textiles treated by the Snowdon process have resulted in the process being classified as making the materials under review "non-flaming," which means that less than 5 per cent. of a square yard of treated material burns in sixty seconds on the application of flame. The materials under review treated by the Snowdon process were scenic canvas (for theatres), curtain net and art muslin (as used in bazaars), and flannelette. Wadding and thin paper (as used by drapers for Christmas decorations), treated by the same process, likewise obtained this classification in some supplementary tests.

Impending Tests.—The Committee's official fire-tests with "Cellit," a non-inflammable celluloid, will take place at the end of September, and the tests with asbestos cement roofing materials early in October when there will also be further fire tests with glazing.

Fire Resistance of Doors and Shutters.

No matter how carefully a building may be subdivided by walls or partitions for the purpose of checking the spread of fire, such precautions are of little avail unless openings are closed by efficient doors or shutters, the importance of which in other situations is equally evident.

For some ten years past the British Fire Prevention Committee have been investigating the fire resistance of doors and shutters, both those in ordinary use and those covered by patent rights.

A publication issued as No. VII. of the *Journal* of the Committee summarises the results of fifty-eight tests in the form of four tables, in two categories relating to full and temporary protection respectively.

It should be understood that the tables in question are merely intended as summaries, and that reference to the original reports is advisable wherever detailed information is desired.

Nevertheless, the tables should be found useful as a guide both to architects and to others controlling building operations. The tables are very conveniently arranged and are illustrated by diagrams, with figured dimensions, showing the main features of each construction tested.

Irrigation in Madras.

So much has been written on the Nile dams and allied works for irrigation purposes that the equally important undertakings of the same nature in other, but less advertised, countries scarcely receive the attention that is their due.

As one instance we may cite the irrigation system of the Madras Presidency, where the areas supplied with water by the major productive works aggregate 3,042,199 acres for first crop and 384,684 acres for second crop, or more than half the cultivable area of land in the whole of Egypt proper.

Two of the most important undertakings in Madras are the Kistna delta system supplying some 712,500 acres for first crop and the Divi Island system providing for the ultimate irrigation, by pumping, of 80,000 acres.

According to the report for the year ended December 31 last, the major productive works of Madras Presidency show a return of 9·07 per cent. on the total capital outlay, and a net profit of 5·91 per cent. after deducting interest.

Reinforced Concrete Water Tower, Chicago.

For comparison with British practice we give the following particulars of a water-tower constructed in reinforced concrete for the supply of water at 50 lb. per square inch pressure in the sprinkler system of the Chicago City Railroad Company. The elevated tank has a capacity of 100,000 gallons, and is of cylindrical form with the side wall 8 in. thick. It is 30 ft. in diameter, by 20 ft. deep from the springing of the arched roof to the level where the curved bottom slopes away.

The bottom, which is 8 in. thick, consists of two domes curved in opposite directions, the central part, 19 ft. in diameter, being curved upwards towards the middle, and the outer ring being cone-shaped, with sides at an angle of 45 deg. The outer ring and centre part of the bottom are carried at their junction by a reinforced concrete ring beam, 24 in. wide by 30 in. deep, supported on four reinforced concrete columns, 30 in. square in cross-section, with extended footings. The total height of the structure from ground level to the top of the tank is 95 ft.

In designing the tower the maximum wind pressure was taken at 50 lb. per square foot, causing an estimated pressure of 28,000 lb. at the base of each column; the greatest column load being 409,000 lb. The columns are braced by horizontal struts, no diagonal bracing having been adopted.

After the tank was filled with water no perceptible settlement took place. The concrete for all parts of the work except the foundations was mixed in the proportions of 1 : 1 : 2, the aggregate consisting of washed gravel gauged to pass through a 1-in. diameter ring.

Artesian Well at the Institution of Civil Engineers' New Premises.

Following a practice that is now becoming very general among the proprietors of large buildings in the metropolis, the Institution of Civil Engineers have sunk an artesian well for the supply of water to their new home in Great George-street. The well has been bored to a depth of 450 ft., commencing at basement floor level, 19 ft. below normal ground surface.

After passing through 17 ft. 6 in. of sand and gravel, 118 ft. 6 in. of London clay, 58 ft. of the Woolwich and Reading beds, and 27 ft. 10 in. of Thanet sand, chalk was reached at the depth of 221 ft. 10 in., and into this the well was sunk for the distance of 228 ft. 2 in.

When water was encountered it rose to within 174 ft. of the basement floor, or 191 ft. below Ordnance level. The well is capable of supplying about 2,000 gallons of water per hour, or more than double the amount required for the purposes of the Institution. The well was sunk by Messrs. Le Grand & Sutcliffe, of Bunhill-row, City, E.C.

Reinforced Concrete Reservoirs at East Cowes.

Two covered reservoirs for the East Cowes Urban District Council are now approaching completion from the designs of Mr. A. E. Barton, the Engineer to the Council, by whom the Kahn system of reinforcement was adopted after careful consideration, the contractors being Messrs. W. H. Brading & Son.

The reservoirs measure 100 ft. square, with the clear height of 17 ft. between the floor and the roof. The storage capacity of the two reservoirs is 1,000,000 gallons.

The flooring consists of a 6-in. slab reinforced with ⅝-in. rib bars spaced in two directions at intervals of 14 in. apart. The wall slabs between the vertical counterforts are from 4 in. to 5 in. thick, reinforced by horizontal and vertical bars, and the division wall is of the same thickness and similarly reinforced. The roof slab is 3 in. thick with ⅝-in. cup bars running in two directions at intervals of 10½ in. apart. The roofing includes main and secondary beams, which receive intermediate support from the counterforts of the division wall and a row of interior columns.

Colombo Harbour.

The recently-finished extension of the south-west breakwater at Colombo completes the construction of one of the largest artificial harbours in the world, with an area of about 1 square mile and affording safe anchorage for from forty to fifty vessels of more than 12,000 tons burthen. The first stone of the breakwater was laid in 1875 by the late King Edward VII., when Prince of Wales, the harbour at that date being nothing better than an open roadstead, exposed to the full violence of the monsoons. The total cost of the works is stated at 3,000,000*l*.

The Woolwich Tunnel.

In 1907 the London County Council obtained Parliamentary authority to construct a tunnel beneath the Thames for the purpose of providing means of direct vehicular communication between Woolwich and North Woolwich instead of those afforded by the existing free ferry. The new tunnel will be about 1,500 ft. long, and the estimated cost is 90,000*l*. In general design the tunnel is similar to the Greenwich tunnel, and it will include stairs to and from the roadway. It is anticipated that the tunnel will be opened to traffic before the end of the present year.

THE BUILDING TRADE.

THE INSURANCE ACT.

IN the report of the proceedings at the meeting of the National Federation of Building Trades Employers of Great Britain contained in our issue for last week some interesting questions under the Insurance Act were answered by Mr. Irons of the Board of Trade.

As regards arrangements made under sect. 99 of the Act with the Board of Trade in respect of workmen engaged through a Labour Exchange, Mr. Irons's explanation that such an arrangement applies only to workmen engaged through an Exchange or in the employer's service at the time the arrangement is made, but not to workmen engaged independently of the Exchanges subsequently to the arrangement, is entirely in accordance with the explanation of this section which we gave in these pages on June 14 last. In the same article we also set out the advantages to be derived by adopting such an arrangement, and it will be remembered that we pointed out that greater advantages accrued to the workmen than to the employer. We showed that as far as the employer was concerned the adoption of such an arrangement was of little gain to the employer except in possibly saving some trouble, unless during any one week a succession of different workmen was employed.

We allude to this question because at the meeting a point was made as to the danger of adopting Labour Exchanges as the side channels through which labour is engaged during a specified period in case of trade disputes. Under the Act a workman who has lost employment by reason of a stoppage of work due to a trade dispute at the premises at which he is engaged is disqualified from receiving unemployed benefit (see sect. 87, subsect. 1), but by sect. 86 a man is not disentitled to unemployed benefit merely because he has declined an offer of employment in a situation vacant in consequence of a stoppage of work due to a trade dispute.

Mr. Irons stated that all applicants for work at the Labour Exchanges would be informed of the existence of a labour dispute.

Now it is clear that if a man is in receipt of unemployed benefit he will not risk going to premises where a dispute is in existence, as should he then lose that employment he will have sacrificed his unemployed benefit under sect. 87.

This seems one of the ill-conceived points in the Act, as it furnishes men with an incentive to abstain from work as long as their unemployed benefit lasts. The only man who can safely apply for work on premises where a dispute exists, or is even threatened, is the man already out of employ by a dispute at the premises at which he was last engaged. The above sections apply equally to men engaged through a Labour Exchange or in other ways, but if the Labour Exchanges become the sole channel through which labour can be engaged, there does seem some risk of combinations being formed, and difficult questions may arise as to the existence of disputes, especially as the definition of trade dispute includes disputes connected with the employment of workmen, "whether in the employment of the employer with whom the dispute arises or not" (see the *Builder*, June 28 last).

The Legislature in the Insurance Act evidently intended to do something to foster the Labour Exchanges, and the workmen engaged through the Exchanges have considerable advantages offered to them, whereas the position of employers is somewhat problematic. In our article, June 14, we said: "It is somewhat curious that an arrangement which seems optional to the employer alone should be made directly advantageous to the workman who can exercise no option, an arrangement which may lead to discontent and even strikes, and the section seems introduced in the interest of Labour Exchanges."

All that can be said at present is that before employers avail themselves of the section they will do well carefully to weigh the advantages offered to them and to consider the advantages that may accrue from an adoption of the arrangments with Labour Exchanges. It is a matter for regret that the granting of "unemployment insurance" involved a consideration for labour disputes, and that the two questions should be connected one with the other. Under the existing conditions of labour unrest this alone would have seemed a sufficient reason for bringing in unemployment insurance as a separate measure after more mature deliberation.

GOVERNMENT CONTRACTS.

THE following tenders have been accepted during the past month by the Government Departments named:—*Admiralty, Works Department:* Quarters for officers and men at Aviation School, Eastchurch—Messrs. F. & H. F. Higgs, Station Works, Hinton-road, Herne-hill, S.E.; removal of roof over No. 2 Dock, H.M. Dockyard, Sheerness—Messrs. M. Lynch & Son, High-street, Rochester. *War Office:* Sanitary appliances (running contract)—Messrs. G. Howson & Sons, Ltd., "Eastwood," Hanley, and "Northwood," Berryhill, Stoke-on-Trent; structural steel and iron work for gantry, etc.—Messrs. Whessoe Foundry Company, Darlington. Works services: Addition of a roof story and sanitary annexes, and remodelling part of Staff College, Camberley—Mr. J. Crockerell, Stanhope Lines, Aldershot; alterations to Block C, Royal Military College, Sandhurst—Messrs. Turner & Kersley, Blackwater, Hants; artificers' work at Brighton—Messrs. Bostel Brothers, 18, Duke-street, Brighton; artificers' work at Dover—Messrs. G. Lewis & Sons, 14, Wildred-road, Dover; artificers' work at Omagh—Mr. James McGrath, Dublin-road, Omagh; artificers' work at Paull-on-Humber—Mr. E. Weatherley, Villa-place, Newcastle-on-Tyne; artificers' work at Tralee, etc.—Mr. Patrick Murphy, Greenview-terrace, Tralee; asphalt work at Redford Cavalry Barracks, Edinburgh—Messrs. Bradshaw's Asphalte Company, Ltd., 52, Queen Victoria-street, E.C.; brick chimneys, Bordon—Messrs. Martin, Wells, & Co., Ltd., Victoria-road, Aldershot; feltwork at Royal Arsenal and Dockyard, Woolwich—Messrs. Engert & Rolfe, Ltd., Borchester-street, Poplar, E.; new offices, army ordinance department, Forthside, Stirling—Messrs. Watson & Sons, 53, Caledonian-road, Perth; periodical services at: Arbour-hill and Montpelier-hill, Dublin—Messrs. G. Morrow & Sons, Ltd., Clifton-street, Belfast; Bordon, Canterbury, Dover, North Aldershot, Sandhurst, Deepcut, Blackdown, Woking, and Pirbright—Messrs. A. Bagnall & Sons, Ltd., Shipley, Yorks; Colchester—Messrs. E. Fearnley & Sons, St. Jude's-place, Bradford; Tidworth—Mr. D. E. Hutton, Shipley, Yorks; quarters for resident engineer, Curragh—Mr. T. O'Mahony, Sun Mount, Fermoy; remount stables, additions to officers' quarters, and mess block, Aliwal Barracks, Tidworth — Messrs. Wakeham Brothers, Friary-yard, Plymouth; remount stables, additions to officers' quarters, alterations to drill shed, band block, etc., additions to mess block, Assaye Barracks, Tidworth—Messrs. G. Grace & Sons, Clatford, Andover; removal of camp buildings, Salisbury Plain—Messrs. W. E. Chivers & Son, Devizes; stables, stores, offices, etc., and additions to officers' quarters and mess block, Mooltan Barracks, Tidworth—Messrs. Wakeham Brothers, Friary-yard, Plymouth; stores, workshops, marker's galleries, firing platforms, etc., Rainham Rifle Range—Messrs. Kirk & Randell, Warren-lane Works, Woolwich; temporary camp buildings, etc., Hereford—Messrs. J. C. Vaughan & Son, 27, Commercial-street, Hereford. *India Office, Store Department:* Concrete mixers—Messrs. Ransome, Ver Mahr Machine Company, Caxton House, Westminster, S.W. *Crown Agents for the Colonies:* Bridgework—Messrs. Head, Wrighton, & Co., Ltd., 5, Victoria-street, S.W.; The Horseley Company, Ltd., Tipton, Staffs; workshop building—Messrs. Dorman, Long, & Co., Ltd., Middlesbrough; cement—the Associated Portland Cement Manufacturers, Ltd., 8, Lloyds-avenue, E.C.; Clydesdale, roofing—Messrs. McKerrow & Co., Ltd., 38, Victoria-street, S.W.; roofwork—Messrs. Braithwaite & Kirk, Crown Bridge Works, West Bromwich; goods sheds—Messrs. J. Lysaght, Ltd., St. Vincent Ironworks, Bristol. *Office of Works:* Builders' work: Erection of new telephone exchange, Accrington—Messrs. W. H. Bury & Son, Pleasant-view, Stanhill, Oswaldtwistle; erection of new parcel office, Birmingham (third contract)—Mr. E. Crowder, Farm-street, Birmingham; completion of new post-office, Blyth—Mr. G. Park, Tynemouth-road, North Shields; erection of new sorting office, Bow—Mr. H. Hann, High-street, Collier's Wood, S.W.; extension to sorting office, Brixton—Messrs. Pasterfield & English, 27, High-street, Collier's Wood, S.W.; adaption of Labour Exchange, Cardiff—Mr. W. A. Linton, Chepstow-road, Newport, Mon; alterations and additions to Chesham Post-office—Mr. J. Mead, 176, Berkhampsted-road, Chesham; Birkenhead and South South End and North South End clearing-houses, at Liverpool Docks—Mr. J. Williams, 70, Collingwood-street, Liverpool; Alexandra and Canada docks and coastwise clearing-house at Liverpool Docks—Mr. G. L. Descer, Everton-road, Liverpool; erection of post-office, Newcastle-under-Lyne—Messrs. J. Meiklejohn & Son, Edward-street, Stoke-on-Trent; Portsmouth ordinary works—The Portsmouth Water Fittings Company, Ltd., Hyde Park-road, Southsea; enlargement of Stockport Post-office—Messrs. W. Bowers & Co., Bath-street, Hereford; engineering labour in day-work at: Birmingham — Messrs. Walker Brothers, Upper Priory, Birmingham; Liverpool—Messrs. Pulford Brothers, Ltd., 108-110, Whitechapel, Liverpool; Manchester—Messrs. Saunders & Taylor, Ltd., 43, Lower Mosley-street, Manchester; tar-paving at Liverpool Docks Clearing Houses—Messrs. Constable, Hart, & Co., Ltd., Clarence House, Albert-street West, E.C.; temporary building of Goole Labour Exchange—Mr. W. Harbrow, Iron Building Works, South Bermondsey, S.E.; pay and voucher boxes, Birkenhead clearing-house, North South End clearing-house (stanchions, etc.), at Liverpool Docks—Mr. G. P. Banbury, East Surrey Ironworks, Croydon. *General Post Office:* Buildings, etc.—Messrs. Caldwell & Perkins, Penzance; laying lines of pipes along Lambeth-road, Wandsworth-road, and St. John's-hill—Messrs. Grounds & Newton, Page-green, South Tottenham, N.; laying lines of pipes in Portsmouth—Messrs. Greig & Mathews, 35, Queen Victoria-street, E.C. *Metropolitan Police:* Carrying out alterations at Chiswick Police Station—Messrs. Messom & Sons, Grosvenor-road Works, Twickenham; carrying out alterations at Enfield Town Police Station—Mr. A. Monk, Lower Edmonton; carrying out alterations at Kennington-lane Police Station—Messrs. Prestige & Co., Cambridge Wharf, Grosvenor-road, S.W.; erection of new police station and court-house at Hampstead—Messrs. Moss & Sons, The Meadway, Hendon, N.W. *Commissioners of Public Works, Ireland:* Building works: Erecting and furnishing Ballymichael National School, Co. Donegal—Messrs. McMullan Brothers, Kilcar, Co. Donegal; alterations to Royal Hibernian Military School, Phœnix Park, Dublin—Messrs. Collen Brothers, Ltd., East Wall, Dublin.

A TRADE CONVENTION.

MESSRS. ROBT. INGHAM CLARK & CO., LTD., varnish and enamel manufacturers, held their annual Convention of Representatives on July 30 and 31 and August 1, there being present the principals and delegates from the firm's allied houses and branches in America, Canada, Australia, India, France, Germany, Belgium, Holland, Italy, Spain, and Portugal.

In opening the Convention at the offices of the company in Caxton House, Westminster, the Chairman, Mr. F. W. Clark, extended a welcome to all present, and Mr. W. H. Andrews, President of Messrs. Pratt & Lambert (Incorporated), of America, delivered an address, in which he referred to the development of the business in that country in recent years. The Chairman then declared the Convention formally opened, and the rest of the day was devoted to a general discussion.—On the following day the Convention reassembled at West Ham Abbey, where the works of the company were inspected, as well as the different processes of manufacture of the "Britannia" brand of varnishes. Practical demonstrations were given by the works manager and his assistants of the uses, methods of application, and results obtained with certain specialties and products of the firm. An interesting item in the visit was the inspection of the new exhibition hall recently completed, to serve as a permanent exhibition of coach and decorative work on which the manufactures of the company are employed from start to finish. Leaving the works about 5 p.m., the members of the Convention returned to the Westminster Palace Hotel, where they were entertained to dinner.

On August 1 the Convention assembled at Caxton House, when a final discussion took

place upon the work done during the two previous days. The proceedings terminated at midday, when the party left by train for Richmond and went on board the steam launch *The King*, in which a trip was made up the river, luncheon and tea being served on board. Returning in the evening to Hampton Court, a short time was spent in visiting the gardens of the Palace, and the party then proceeded to Tagg's Thames Hotel, when a banquet, presided over by the Chairman, brought the Convention to a close.

GENERAL BUILDING NEWS.

TOWER, LEEMING CHURCH, NEAR BEDALE.

On the 26th ult. the Bishop of Ripon dedicated a new tower to Leeming Church, near Bedale, Yorks. The tower is built of local bricks with traceried windows of stone and with stone pinnacles and battlements. It is 12 ft. square, and about 48 ft. high, and has a peal of eight tubular bells by Messrs. Harrington & Latham, of Coventry. The carving was executed by Messrs. Martyn, of Cheltenham. The sole contractors were Messrs. T. & J. Willoughby, of Northallerton. The architect was Mr. H. D. Pritchett, Lic.R.I.B.A., of Darlington, the total cost, without bells, being about 505*l*.

SCHOOL EXTENSION, BOLTON.

A new primary department in connexion with the Primitive Methodist Church, Higher Bridge-street, has just been opened. Messrs. Stead & Morris, of Bolton, were the architects. The plans included the erection of a new two-story building at the rear of the present school, and the provision for a new primary school on the ground floor, new vestry above, new kitchen, cloakroom, and ladies' and gentlemen's conveniences. The contract work was let to Messrs. Page & Sons, builders and contractors, who, together with the sub-contractors, Messrs. Moore Brothers, bricklayers, Tonge Moor, with Mr. S. Clarke as clerk of the works, have carried out the work.

CHURCH HALL, BRIMINGTON.

Mr. W. M. Ashmore, of Chesterfield, is the architect for this new building, which is being erected at a cost of about 1,300*l*. The hall is 85 ft. in length and will seat 350 people. The builder is Mr. W. H. Margereson.

NEW PAVILION AT TORQUAY.

The new pavilion was opened on Saturday last week by the Mayor. The building has been erected at the eastern end of Princess-gardens, which were laid out on land reclaimed from the sea nearly twenty years ago. As the site is mainly of sand special provision had to be made for the foundations of the building, and the scheme of a reinforced concrete raft was adopted. Upon this a steel framework was erected, the spaces between the stanchions being filled with brickwork faced with imitation marble. The roof of steel lattice-work is covered with felt and copper. That portion of it which faces Princess-gardens and the harbour is flat, with an external covering of asphalt, and will be used as an open-air promenade and tea-garden. The total cost of the building was 17,000*l*. Mr. Henry R. Garrett, the Borough Engineer, was the architect.

TELEPHONE EXCHANGE, DARLINGTON.

A new telephone extension is being made to the existing Post Office buildings. On the lower ground-floor level, or the Crown-street entrance, there will be a test-room 42 ft. by 29 ft., heating chamber, basket store, lift, motor-room, and engineers' stores, etc. On the principal floor the existing sorting office will be extended to a length of about 95 ft., with postal stores, women's retiring-room, lavatories, and cloak-room adjoining. On the upper floor there will be a telephone switch-room, 36 ft. by 30 ft., and spare rooms. The contractor is Mr. W. B. Cooper, of Darlington. The work will be carried out under the general supervision of Sir Henry Tanner, I.S.O., F.R.I.B.A.

RENOVATION OF THE SHIRE HALL, CHELMSFORD.

The renovation of the front of the Shire Hall, Chelmsford, is now practically complete. Messrs. Henry Potter & Sons, of Chelmsford, erected the scaffold; and Messrs. Cubitt & Co., of Gray's Inn-road, carried out the renovation work. The entire renovation has been accomplished under the direction of the County Architect, Mr. Frank Whitmore, while Mr. F. A. Browne, of the County Architect's office, has supervised the work on the building.

BOARD-ROOM, TOXTETH.

A new Board-room has been erected for the Toxteth Guardians from plans prepared by Mr. W. W. Thomas, architect. This Board-room is the last of many improvements which have been made to the public offices, which were erected in 1865.

THE CITY HALL, GLASGOW.

This hall has now been redecorated under the supervision of Mr. John Ednie, Art Superintendent at the Royal Technical College, and the general scheme of decoration is cream, gold, and blue, all the woodwork being painted mahogany. The work was executed by Messrs. J. B. Bennett & Sons, Ltd., of Glasgow.

THE NEW LAW COURTS.

The structure that has slowly arisen on the "Strand Park"—as the strip of garden land alongside the old Law Courts has been called—is now practically complete, after over three years' work. There are four additional courts—two Divorce Courts, the Court of Criminal Appeal, and the Court of the Railway and Canal Commission. It may be mentioned, says the *Morning Post*, that the late George Edmund Street, the architect of the parent buildings, intended to cover this ground with the great Record Tower, surrounded by subsidiary offices, but was hampered by the conflicting interests of the Law Officers and the then Minister of Works. Had Mr. Street had his way, a more adequate provision for expanding accommodation would have been made, and his original scheme of placing the courts around the great hall was, unfortunately, never realised. The new buildings, which have cost approximately 100,000*l*. to complete, were designed by Sir Henry Tanner, Architect to the Office of Works, and the spirit of Street's work has been carefully and sympathetically followed. To the Strand the frontage presents a gable, crocketed and surmounted by a statue of Justice, the work of Mr. Stevenson, of Chelsea. At each end of this elevation there is a turret, to match the original building. A bridge, consisting of three arches, connects the four new courts with the court level of the old building, and spans the old steps that form an approach to Carey-street. Entering from the Strand, the Divorce Court Judges have an electric lift to their rooms. In the old court about 300 persons in all could crowd in to the hearing of the case; now nearly 500 will be accommodated in the new court. Under the Court of Criminal Appeal there are nineteen cells, about 4 ft. square, and from an adjoining corridor there is a staircase direct to the dock. An illustration of the additions appeared in our issue for July 11, 1908.

HOSPITAL, FOWEY.

The foundation-stone has just been laid of a new hospital at Fowey, on the Place estate. The building will be roofed with Delabole slate. There are to be three wards—a four-bed male ward, a two-bed female ward, and a private ward—a committee-room, sitting-room, and an operating theatre. A verandah is to run the whole length of the south front, and corridors will traverse the building in a direct line right through. The building is estimated to cost 2,000*l*. The architect is Mr. Parkes Lees, of Lanteglos-by-Fowey.

TRADE NEWS.

Messrs. W. H. Willcox & Co., Ltd., Government contractors, oil refiners, leather belting manufacturers, etc., have, through expansion of business, found it necessary to acquire increased accommodation, and have taken a building adjoining their main warehouses, Nos. 32, 34, and 36, Southwark-street, viz., No. 38, and are removing there on August 27. The registered offices will in future be at No. 38.

Alterations are being carried out at No. 88, Commercial-street, E., by Messrs. E. A. Roome & Co., 36, Basinghall-street, under the superintendence of Messrs. Still, Wheat, & Luker.

CASTLE CARROCK SEWERAGE.

The Brampton Rural District Council have instructed Messrs. Taylor & Wallin (Mr. Harry W. Taylor, A.M.Inst.C.E.), of Newcastle-on-Tyne and Birmingham, to prepare a scheme of sewerage and sewage disposal for the village of Castle Carrock.

APPLICATIONS UNDER LONDON BUILDING ACTS, 1894 to 1909.

THE following applications have been dealt with during the recess of the London County Council:—

Lines of Frontage and Projections.

Camberwell, North.—Projecting sign at the Grand Hall, Camberwell New-road. Camberwell (Messrs. F. Matcham & Co. for Mr. F. W Purcell).—Consent.

Camberwell, North.—Projecting illuminated sign in front of No. 13, Church-street, Camberwell (Mr. C. G. Macdowell for the Prosser Roberts Company).—Refused.

Chelsea.—Projecting sign at the motor-garage of Messrs. Harrods, Ltd., on the north-eastern side of Sloane-avenue, Chelsea (Mr. C. W. Stephens for Messrs. Harrods, Ltd.).—Refused.

City of London.—Balcony in front of No. 70, Fleet-street, City (Messrs. Murray, Delves, & Murray for Messrs. Sweetings, Ltd.).—Refused.

Dulwich.—Retention of a greenhouse and the erection of a greenhouse at No. 267, Underhill-road, Dulwich, next to Upland-road (Mr. W. M. Epps for Miss Emily Rue).—Consent.

Fulham.—Bay-window at No. 120, Hurlingham-road, Fulham, as a shop front (Mr. J. Codrington for Mrs. Trood).—Refused.

Holborn.—Erection of an illuminated sign at British Museum tube railway-station, High Holborn (Mr. E. P. Grove for the Central London Railway Company).—Consent.

Holborn.—Erection of Nos. 24, 25, and 26, Great Queen-street, Kingsway (Messrs. Bird & Walters for Messrs. Johnson, Dymond, & Son).—Consent.

Kensington, North.—Erection of an external teak staircase at No. 1, Royal-crescent-mews, Norland-road, Notting Hill (Mr. L. T. Wreford).—Consent.

Kensington, North.—Erection of two bay-windows, at No. 14, Ladbroke-road, Kensington (Mr. W. Willett for Mr. E. W. Martelli).—Consent.

Kensington, South.—Iron and glass hood at No. 1, Finstock-road, Kensington, next to Oxford-gardens (Mr. A. Ransom).—Consent.

Kensington, South.—Erection of buildings upon the site of Nos. 197 to 215, Kensington High-street, Kensington (Mr. W. L. Eves for Messrs. W. H. Hunt & Co., Lewis & Burrows, J. Butt & Son, Lilley & Skinner).—Consent.

Kensington, South.—Projecting sign at the "Friend at Hand" public-house, Hans-road, Kensington (Messrs. F. Sage & Co., Ltd., for Messrs. Harrods, Ltd.).—Consent.

Lewisham.—Erection of five houses with bay-windows and projecting hoods on the southern side of Brockley-grove, Lewisham (Messrs. J. W. Heath & Sons).—Consent.

Lewisham.—Erection of buildings with bay-windows on the western side of Brockley-rise, and also on both sides of Bartram-road, Lewisham (Mr. J. E. Yerbury).—Consent.

St. Pancras, South.—Erection of a water-closet and staircase in the front area of No. 24, Guilford-street, Russell-square (Mr. S. A. S. Yeo).—Consent.

Strand.—Two showcases at No. 27, Shaftesbury-avenue (Messrs. E. Pollard & Co. for Mr. H. Goodman).—Consent.

Strand.—Two showcases at No. 41, Cranbourne-street, Piccadilly (Mr. W. Lockwood for Mrs. H. Levey).—Refused.

Wandsworth.—Porches, bay-windows, and bargeboards to fourteen houses on the southern side of Kirkstall-road, Streatham-hill (Mr. A. G. Hastilow for Mr. F. E. Cain).—Consent.

Wandsworth.—Bay-windows, porches, and oriel windows to four houses on the south-western side of Tooting Bec-road, Wandsworth, northward of Montana-road (Messrs. Swain & Selley).—Consent.

Wandsworth.—Addition to a one-story shop at No. 99, Streatham High-road, next to Shrubbery-road (Boot's Pure Drug Company, Ltd.).—Consent.

Width of Way.

Kensington, South.—Addition at the rear of the "Macaulay Arms," Church-street, Notting-hill, abutting upon Peel-street (Mr. A. Dixon for Messrs. Whitbread & Co., Ltd.).—Consent.

Width of Way and Space at Rear.

Poplar.—Erection of four cottages on the southern side of Morant-street, Poplar (Mr. T. J. Bee for Mr. W. J. Kemp).—Consent.

Width of Way, Line of Frontage, and Space at Rear.

Marylebone, East.—Erection of a building, to be known as the Princess's Hotel, upon a site abutting upon Oxford-street, Winsley-street, Castle-street East, Adam and Eve-court, and Wells-street, St. Marylebone (Messrs. Boehmer & Gibbs for Mrs. M. Clark).—Consent.

Lines of Frontage and Construction.

Dulwich.—Erection of a showcase at No. 24, Half Moon-lane, Dulwich, next to Stradella-road (Mr. T. Baughan).—Refused.

Islington, East.—Temporary showcase in front of No. 51, Mildmay-park, Islington (Messrs. Lovegrove & Papworth).—Consent.

Space at Rear and Projections.

Strand.—Building upon the site of Nos. 41 and 42, Bedford-street and No. 25, Maiden-lane, Strand, with an irregular open space at the rear and with a three-story oriel-window next to Bedford-street (Messrs. Crickmay & Sons for the Corps of Commissioners).—Consent.

Projections and Alteration of Building.

Hampstead.—Additional story to an existing bay-window at the rear of No. 106, Goldhurst-terrace, Hampstead (Mr. A. S. R. Ley for Mr. J. C. Swinburn-Hanham).—Consent.

Space at Rear.

Hammersmith.—Erection of a headmistress's house and music school at St. Paul's School for Girls, Brook-green and Rowan-road, Hammersmith (Mr. Dendy Watney).—Consent.

Hoxton.—Erection of a building upon the site of Nos. 57 and 59, Clifton-street, Hoxton, with an irregular open space at the rear (Mr. M. W. Matts for Messrs. J. Willmott & Sons).—Consent.

Kensington, South.—Erection of an additional story at No. 1, Astwood-mews, South Kensington (Mr. A. W. Rose).—Consent.

Marylebone, East.—Erection of a building upon the site of Nos. 107 and 108, High-street, St. Marylebone (Mr. J. R. Vining).—Consent.

St. George, Hanover-square.—Alterations to a stable building attached to No. 38, Hill-street, Mayfair (Mr. W. Flockhart for Mr. E. G. Raphael).—Consent.

St. George, Hanover-square.—Erection of two buildings upon the site of Nos. 8, 9, and 10, Norfolk-street, St. George, Hanover-square (Mr. F. W. Foster).—Refused.

St. George, Hanover-square.—Alterations and additions at the premises of Krieger Electric Carriage Syndicate, Ltd., No. 48A, Gillingham-street, Eccleston-square (Mr. G. S. F. Rutty for the Krieger Electric Carriage Syndicate, Ltd.).—Refused.

Wandsworth.—Erection of buildings on the eastern side of Streatham High-road, Wandsworth, adjacent to Hermitage-bridge (Messrs. F. Chown & Sheffield).—Consent.

Wandsworth.—Erection of two buildings at the corners of Salterford-road and Welham-road, Wandsworth, with irregular open spaces at the rear (Messrs. Swain & Selley).—Consent.

Formation of Street.

Lewisham.—Formation or laying-out of a street for carriage traffic to lead from Taylor's-lane to Bradford-road, Lewisham (Mr. E. B. Yewen).—Refused.

Buildings for the Supply of Electricity.

Bow and Bromley.—Construction of additions at the electricity generating-station, Yeo-street, Poplar (Mr. H. Heckford for the Poplar Metropolitan Borough Council).—Consent.

Southwark, West.—Coal-conveyor staging at Bankside generating-station, Southwark (Mr. F. Bailey for the City of London Electric Lighting Company, Ltd.).—Consent.

Alteration of Building.

City of London.—Additional story upon part of Palmerston House, Old Broad-street, City (Messrs. R. Creese, Harrison, & Son for the directors of the City Offices Company, Ltd.).—Consent.

Cubical Extent.

Battersea.—Erection of a building and silos at the premises of the Morgan Crucible Company, Ford's-place, Battersea (Morgan Crucible Company, Ltd.).—Consent.

Brixton.—Erection of two additions at the premises of the General Motor Cab Company, Ltd., next to Cranmer-road, Kennington (the General Motor Cab Company, Ltd.).—Consent.

City of London.—Retention of an iron building on the roof of their premises, Salisbury-square, White Lion-court, Crown-court, and Hanging Sword-alley, Fleet-street, City (Messrs. Edward Lloyd, Ltd.).—Consent.

Uniting of Buildings.

Chelsea.—Use of rolling steel shutters to openings in a division wall at the premises of the Michelin Tyre Company, Ltd., Fulham-road, between the main building and the extension, and to openings between the new floors and the staircase in the extension next to Leader-street (Milner Safe Company, Ltd., for the Michelin Tyre Company, Ltd.).—Consent.

City of London.—Uniting of No. 20, Whitefriars-street, City, with a building at the rear, by means of an opening at the second-floor level (Messrs. Walter Hall & Sons).—Consent.

Finsbury, Central.—Opening between Nos. 8 and 9, Clerkenwell-green and No. 56, St. John's-square, Finsbury, and to the use of double iron doors (Mr. J. B. Gridley for Messrs. F. Pollard & Co.).—Consent.

Holborn.—Uniting of Nos. 17 and 18 and 19 and 20, Verulam-street, Holborn, by means of an opening at the third-floor level (Mr. M. W. Matts for Messrs. J. Willmott & Sons).—Consent.

Holborn.—Uniting of Nos. 37 and 38, Bedford-row, Holborn (Messrs. Robinson & Roods for Messrs. Torr & Co.).—Consent.

Kensington, South.—Iron and glass roof over a portion of the passageway, at present unenclosed, leading to the Kensington High-street Station of the Metropolitan District Railway and between the premises of Messrs. Pontings, Ltd. (Messrs. Pontings, Ltd.).—Refused.

Limehouse.—Uniting of the Phœnix Biscuit Works, Medland-street, Limehouse, with No. 18, Narrow-street (Mr. E. A. E. Woodrow).—Consent.

Rotherhithe.—Formation of two openings in the party-wall between Nos. 106 and 108, Jamaica-road, Rotherhithe (Mr. A. W. V—Consent.

St. Pancras, East.—Use of double rolling shutters in lieu of double iron doors to an opening in a division wall at a motor-garage, Rochester-mews, Camden Town (Milner's Safe Company, Ltd.).—Consent.

Strand.—Formation of openings at the basement and ground-floor level, between No. 32 and Nos. 33 and 34, Warwick-street, Regent-street (Mr. J. R. Vining for Messrs. Liberty & Co.).—Consent.

PROJECTED NEW BUILDINGS IN THE PROVINCES.*

ASHSTEAD.—Council buildings; Mr. W. T. Wooldridge, Surveyor, Rural District Council Offices, Epsom.

Aspull (Lancs).—Conveniences at the Finger Post and near St. Elizabeth's Church; Mr. L. Athron, Surveyor, Urban District Council Offices, Aspull.

Barrow-in-Furness.—Extensions at Electricity Works (983*l.*); Messrs. W. Gradwell & Co., Ltd., builders, Hindpool-road, Barrow.

Birkenhead.—School near Birkenhead; Mr. W. D. Wiles, County Architect, 42A, High-street, Wrexham.

Birmingham.—Additions to women's hospital (4,500*l.*); Mr. F. W. Martin, architect, Colmore-row, Birmingham.

Bognor.—Thirteen houses, Sheepwash-lane (2,660*l.*); Messrs. H. W. Newell & Son, London-road, Bognor.

Bournemouth.—Additions to school; Mr. T. Stevens, architect, Richmond-chambers, Bournemouth; Messrs. McWilliam & Son, builders, Wharf-road, Bournemouth. Additions to Meyrick Park Hotel; Mr. A. G. Ware, architect, Observer-buildings, Albert-road, Bournemouth.

Carlingford.—Store at harbour; Mr. W. Hardy, Engineer, Carlingford Lough Commission.

Chard. — Additions, Municipal buildings (2,000*l.*); Mr. S. G. Rogers, Surveyor, Town Hall, Chard.

Chesham.—Swimming-bath (465*l.*); Messrs. Rust & Ratcliffe, builders, 1, Higham-road.

Cork.—Residence for Medical Superintendent (1,835*l.*); Mr. J. Buckley, builder, Cork.

Crook (Co. Durham).—School; Mr. John G. Burrell, architect, Market-place-chambers, Durham; Messrs. Morton Brothers, builders, Crook.

Dartford.—Public hall (8,000*l.*) and library (5,000*l.*); Mr. W. Kay, Clerk, Urban District Council Offices, Dartford; Architect to be appointed by competition.

Doncaster.—Old Volunteer Club, Silver street; Mr. T. H. Johnson, architect, Priory-place, Doncaster; Messrs. B. Wortley & Son, builders, 18, Nether Hall-road, Doncaster.

Durham.—Workmen's dwellings (1,025*l.*); Messrs. Beevers & Clark, builders, Church-street, Durham.

Eastry.—Four houses (800*l.*); Mr. D. E. Foster, Surveyor, Rural District Council Offices, Eastry.

Eccleston.—Extensions to mill for the Eccleston New Mill Company, Ltd., cotton goods manufacturers.

Edinburgh.—Extensions to Ladies' College (20,000*l.*); Mr. J. Hippolyte Blanc, 20, Rutland-square, Edinburgh.

Elland. — Proposed workmen's dwellings; Mr. P. H. Whitwam, Surveyor, Urban District Council Offices, Elland.

Exeter.—Lloyd's Bank; Mr. J. A. Lucas, architect, High-street, Exeter; Messrs. Westcott, Austin, & White, builders, Summerland-crescent, Exeter.

Eve (Oxon). — School (2,300*l.*); Mr. S. Stellard, architect, 8, New-road, Oxford.

Flushing.—Proposed twelve houses; Mr. J. H. Chubb, Surveyor, Rural District Council Offices, East Kerrier.

Foleshill (Coventry).—Additions to Windmill Land School; Mr. J. Willmott, architect, 6, Waterloo-street, Birmingham.

Glasgow.—Electric theatre, Paisley-road, Toll (2,000*l.*); Mr. A. V. Gardner, architect, 104, Bath-street, Glasgow. Additions to Peterhill School (4,000*l.*), also to Eastpark School; Mr. J. Maben, architect, 129, Bath-street, Glasgow. Warehouse and offices, Mitchell-street (10,000*l.*); Messrs. Frank Burnet & Boston, architects, 180, Hope-street, Glasgow. Hospital for consumptives (60,000*l.*); Mr. A. B. M'Donald, Surveyor, Burgh Hall, Glasgow.

Great Yarmouth.—Additions to infirmary (5,000*l.*); Mr. A. S. Hewitt, architect, Regent-street, Great Yarmouth.

Gullane.—House (1,340*l.*); Mr. W. Cuthbert, builder, Aberlady.

High Dalmuir.—Sixty houses; Mr. Leslie Kirk, builder, Clydebank.

Hingham (Attleborough). — Six houses (1,054*l.*); Mr. H. G. Tofts, builder, Hingham.

* See also our list of Competitions, Contracts, etc., on another page.

LONDON COUNCILS.

Barnes.—Application is to be made to the London and South-Western Railway Company to ascertain whether they would consent to a scheme prepared by the Borough Surveyor for carrying out the widening of Barnes Railway Bridge. This scheme provides for the widening of the approaches of the bridge out to 45 ft., so as to give two 7-ft. 6-in. footways and a 30-ft. carriageway on the approaches, and a 26-ft. carriageway and a 6-ft. footway on the bridge itself; also for carrying the footpath on the west side of the line so as to meet the company's footbridge. The estimated cost of the work is put at 2,100*l.* In order that Barnes High-street may be widened application is to be made to the Local Government Board for a Provisional Order to enable the Council to put into force the compulsory powers of the Land Clauses Act. Plans submitted by the Surveyor have been approved for making up St. Leonard's-road. Subject to a contract, the Roadamant Company, Ltd., are to be asked to provide and lay on the roadway in a portion of the Rock's-lane, "Roadamant" at least 1 in. thick, upon a prepared macadam foundation, at 5s. 8d. per yard super., and maintain same for a period of five years. Plans have been passed for Messrs. Adamson & Sons for carrying out additions to Hinxton House, Stonehill-road.

Hemel Hempstead.—The Surveyor has been instructed to prepare an estimate for carrying out an improvement scheme on the west side of High-street. Plans have been passed for Mr. S. C. Smith for five pairs of houses in Chapel-street; also for Mr. I. Lea for extensions to the Electric Theatre, Albion-hill.

Paddington.—Dr. Reginald Dudfield, Medical Officer of Health for the Borough, in his annual Report which has just been issued, states, with regard to drainage work, that the drainage system of 227 houses were wholly or partially reconstructed during the year, as compared with 287 in 1910, 554 in 1909, and 605 in 1908. In addition, the drains of fifty houses were made water-tight by means of the patent process. The drains of sixty-four other houses were tested for various reasons, and found to be sound. In 1909 ninety-seven drains were found on first test to be water-tight. The reconstruction of the combined drainage systems on the Queen's Park Estate, commenced in 1900, has now been completed. In the course of the work certain short lengths of combined drains (main drains close to the sewer connexions) were found to be under large masses of concrete. Such short lengths were not disturbed, but the right to require their reconstruction, if found later to be necessary, was insisted on. During the past year rats were found to have made their way from certain of these old drains, which were then reconstructed. Unused house connexions were found on the main drains. At eight houses settlements in the back additions made underpinning necessary, such work involving disturbances and partial reconstruction of the drains. At fourteen houses damp-proof courses were put in the main walls to remedy dampness. Thirty-three houses were inspected after the occurrence of infectious disease, and the drains chemically tested after cases of diphtheria and enteric fever. All drains so tested were found to be sound. With regard to deposit of drainage plans, the Medical Officer states that last year 348 sets of plans and notices were received, as compared with 303 in the previous year. With regard to combined drainage, four systems examined last year were found to be defective and were reconstructed by the Council. The total number of premises inspected for the purpose of the Housing, Town Planning, etc., Act, 1909, was 154, and in the majority of instances the conditions found were remediable under the Public Health (London), Act, 1891. The necessary notices were served, and the required works carried out. Ten years have elapsed since the presentation of the Special Report (August, 1901) on the housing conditions, etc., in the Clarendon-street area. It is proposed to submit in the early autumn a further Report contrasting the conditions found at the enumeration of 1911 with those noted in 1901. The proposed Report will also give comparative vital statistics for the periods 1896-1901 and 1906-11.

THE ROYAL SANITARY INSTITUTE:
CONGRESS AT YORK.

(Concluded from last week, page 199.)

Delhi.

MR. T. SALKFIELD (Engineer to the Delhi Municipality) contributed a paper on "Delhi," which in his absence was taken as read. He traced the past history of the city, which goes back as far as the XVth century B.C., and described the present sanitary system and waterworks and other branches of municipal enterprise. In conclusion he said:—"Delhi is again to take her stand as an Imperial city, and Phœnix-like from the ashes and ruins of past cities the piles are to rise which are to hold the Viceroy of our Sovereign, and the councillors and machinery by which the great continent of India, with its millions of inhabitants, is governed. The task of the town-planners of the Imperial capital would appear to be to these not only a city which will set the high-water mark for India for the tide of municipal perfection and sanitation, but one which in stately beauty will also outrival both the massive magnificence of the Moghul palaces in the Fort."

The Chairman, in proposing a vote of thanks to the authors of papers read, said that the subjects discussed had been interesting to architects, civil engineers, and sanitary engineers. The suggestions of Mr. Ricardo so far as the by-laws of the Local Government Board were concerned might give offence to some, but if they looked through some of the by-laws in the rural districts they would find that architects were tied down in the building of cottage property in such a way that it made it almost impossible for them to build cheap houses. It was, in his opinion, necessary to give at least a tenth of an acre of garden to a cottage, but when they were laying out an estate they had to make roads 36 ft. wide, and that was wrong. The city of Newcastle-on-Tyne had some of the most stringent by-laws he knew of, and would not allow a party wall to be less than 14 in. or a drain less than 9 ft. deep to be started. Representations, however, had been made by the architects to the authorities, and they now allowed the drains to start at 4 ft. 6 in. instead of 9 ft. With regard to the means of escape in case of fire, the iron staircases were generally placed outside the windows, with the result that if a fire occurred on one of the lower floors the flames got through the window, and the people above were cut off from the staircase.

Mr. G. Benson, A.R.I.B.A., seconded the motion, and it was carried.

At the second sitting of the Conference Mr. W. H. Humphreys took the chair.

York Fifty Years Hence.

Dr. Tempest Anderson, in an address on this subject, illustrated by lantern slides, suggested a scheme of a circular road at the outskirts of the area of the city at present built upon, and the keeping in view of probabilities of another farther out for future developments. He showed his suggestion on the screen, but confessed that he was not an architect or a surveyor, and recognised that the details required working in by a master hand.

Mr. Spurr (City Engineer, York) said that some progress had been made in town planning in York, and a serious attempt was being made to develop the outskirts on town-planning lines. The first area was almost completed, and the meeting of owners and occupiers would be held early next month.

Miss E. A. Lowe (Warrington), referring to the complaint of Dr. Anderson that certain districts which should have been acquired years ago for new routes had been built over by working-class dwellings, asked where they were to live. She suggested that they should be housed in model villages.

Dr. Anderson said he was connected with a land company formed to provide small, commodious houses for the working classes, and the first difficulty they met with was that of sewage, which absorbed a good deal of their capital. They were going to form wide streets with grass verges, and the local authority asked who was going to keep them in order. In the end they had to borrow money from an insurance company. Owing to a number of the railway workmen being removed to Darlington, the houses did not go off as was expected, and the result was that the mortgagees foreclosed and the shareholders lost every penny they had put into the company. He had a few plots left on his hands, and he had now got a notice from Mr. Lloyd George for extra tax for undeveloped land. If the Corporation of York would offer a prize or a series of prizes for the best plan which would include the ring road and all the other amenities they had been talking of, he would be pleased to contribute 100*l.* towards such a desirable end.

Dr. Armstrong considered that the duty of the local authorities was to provide for the very worst of the slum dwellings.

Mr. Brodie (Blackpool) observed that they had in one scheme for road widening bought more land than they wanted, and, having made the necessary improvements, they had sold the surplus land at a price which recouped them for the expenditure.

Purification of Water.

Dr. Myer Coplans (Leeds), in the course of a paper on "Some Points in the Purification of Water," suggested that means for the detection of the presence of sewage in water must become rather more dependable and serviceable than has been the case hitherto, and it was possible that a wider use of the salinometer, or some such similar apparatus, for the detection and elimination of electrolytes in solution might be the means of the speedy recognition and the still more speedy localisation of faults occurring in the course of our water supplies.

Sewage Works for Institutions, etc.

Dr. H. Maclean Wilson (West Riding Rivers Board) discussed the question of sewage works for institutions, country houses, and small hamlets. The author admitted that there was nothing new in the methods adopted, and were those of Professor Dunbar, Director of the Hamburg Hygienic Institute. He described what works would be required for the domestic sewage of a small hamlet containing 100 persons.

Mr. J. E. Tulse also contributed a paper on "Country House Sewage Purification." He said that the first decade of the XXth century probably witnessed the greatest realisation of the need for dealing with the question of sewage treatment for the larger towns and cities, and for carrying out works to meet satisfactorily, as far as available knowledge permitted, these requirements. During this period the necessary purification of the sewage from the large towns had been fairly adequately completed. The sewage problem of the second and third decades of this century would probably be, first, the bringing into line of the towns and villages, and, second, the realisation of the necessity for extending the work to the smaller hamlets and groups of houses and isolated buildings. In many parts of the country these were still in a lamentable condition as regards both water supply and drainage. The absence of regular attendants and the impracticability of installing sludge lifting and pressing plant for a small installation rendered it necessary to try to devise some alternative method. He believed that the hydrolytic tank of Dr. Travis in England, the Emscher or Dortmund tanks in Germany, and the modification of these as designed by Mr. Aird Murray in Canada at the Lethbridge works point the way in which this modification should be sought, for in such a tank the liquid sewage, which constituted, he supposed, roughly 95 per cent. of the total volume, could be treated in an aseptic condition, while septic action may be utilised for its sole useful function of breaking down and digesting the solid portions, so as to render them more capable of being attacked in the filter bed or removed from the tank.

Mr. Kaye Parry said he had been associated with the question of sewage purification for a great many years, and he thought the younger men there would perhaps learn something by looking back and seeing how the question was handled by the early reformers. They believed that sewage purification could be accomplished in a country house without putrification, because the sewage came down within three or four minutes from the time it got into the drains. Mr. Rogers Field used simply to screen out the solid matter, and allowed the liquor to flow over the land where it was suitable. Mr. Bailey Denton put it through a process of intermittent filtration, which was really a bacteriological process, although he did not know it at the time. He was satisfied that the solution of the problem, so far as single houses and isolated institutions were concerned, was to deal with the liquid while it was fresh.

Dr. Temple Anderson supported the views of the last speaker.

Mr. Costain (Great Crosby) said that for a large country house, or even a number of smaller houses, he considered an adaptation of the septic tank principle absolutely superior to the system described by Mr. Kaye Parry.

Mr. Burleigh said that as an architect he felt the local Councils were making a big mistake in insisting on water-closets in country districts and having large sewage works which cost a great deal of money. Dr. Poore said that in Holland there were no water-closets, and the Dutch were not a weakly class of people. On the contrary, they were an energetic class of people, and grew more than they required and exported it. They did this because they took advantage of natural conditions, and used the sewage as manure on the land, whilst we in this country threw it into the sea.

Mr. Fairbank said that with a properly-designed sedimentation tank of not too large a size, and with even and regular distribution, there should be no nuisance with small installations.

Sanitary Fittings.

Mr. Saxon Snell, F.R.I.B.A., read a paper by the General Council for the National Registration of Plumbers on "The Selection, Arrangement, and Fixing of Sanitary Fittings," which stated that it was important that the principles and construction of sanitary fittings should be understood before they could be satisfactorily selected and arranged for the positions for which they were intended. If all sanitary fittings were so constructed that any part which was likely to act foul or become a nuisance was easily accessible for cleansing most of their objectionable features would be eliminated. As water-closets were by far the most important class of sanitary fittings care should be taken to select from the best available those most suitable for the positions in which they were required. There could be no doubt that for the ground and chamber floors those apparatus which were as nearly noiseless as possible and retained a large amount of water in the bases, such as the improved valve water-closet or a quiet-working siphonic, were the most suitable. When enclosures to the water-closets were desired or found most convenient the modern improvements should be adopted in order to avoid the objections justly raised against the old style of enclosed seat. Everything in connexion with a water-closet should be as non-absorbent as practicable. Although arguments were often used against over-trapping sanitary fittings, the second trap in a siphonic water-closet and the trap below a valve-closet were wise precautions against the passage of drain air into the house, and when these traps were self-cleansing in form little, if any, disadvantage could accrue from their use. The single-seal water-closet, such as the wash-down pedestal and corbel, were very suitable for water-closets in important positions, but many pedestal wash-downs, owing to their simplicity, were more likely to lose the water seal of the trap than those of the valve and siphonic type. It was very important, therefore, to guard against the effect of momentum, siphonage, wasting, and evaporation. No ordinary trap was proof against the effect of siphonage, and where such action was likely to occur the trap should be properly ventilated. An efficient water flush was most essential to all classes of water-closets, and while an unlimited supply was most satisfactory it was not necessarily wasteful; indeed, in most cases the absence of a waste-preventing apparatus induced less waste of water. The connexion between earthenware water-closets and lead soil-pipes should be made by means of a hard metal ferrule or socket soldered to the lead pipe, and the joint made with Portland or some equally reliable cement. As a further aid to cleanliness the corbel or bracket

closet, which leaves the floor space quite clear, was a decided advance, and, where it was possible to get a good fixing in the back wall, was preferable to the pedestal form of water-closet. The main principles to be kept in view in connexion with other sanitary fittings, such as baths, lavatories, and sinks, were:—Large outlets for the quick discharge of waste water; self-cleansing and ventilated waste pipes, the lower ends connected to the side inlets of self-cleansing gully or intercepting traps; all fouled surfaces reduced to the smallest possible space. The waste water should be used, as far as practicable, in the form of flushing water to the gullies and drains. Gully traps with large receptacles which accumulated filth, and which could not be satisfactorily flushed out with the waste water, should be discarded.

The Chairman invited discussion, particularly with regard to the amount of water which should be allowed for flushing under normal circumstances. His experience was that from 2½ to 3 gallons was quite sufficient.

Mr. Saxon Snell said it was refreshing to hear a water engineer in favour of 3 gallons for flushing, because in London they had the Water Board trying to cut them down.

The Conference closed with a vote of thanks to the Chairman, proposed by Mr. Brodie.

LEGAL COLUMN.

Sub-Contractors and Insurance.

In the *Times* of the 17th inst. it is announced that the Committee of Contractors appointed to consider the Insurance Act invites contractors for public works who desire to make suggestions to communicate with the Secretary, 48, Gray's Inn-road, London, W.C. The Committee is about to seek a pronouncement from the Insurance Commissioners as to who is the employer under Part II. of the Act where a large amount of work on a contract is sublet, or where "butty gangs" undertake work. We commented on sect. 91 (*f*), which deals with this question, in our article of July 5. The section and Rule 36 made thereunder are extremely complicated, but their effect seems to be that only where the sub-contractor, "the immediate employer," is a person "who himself works wholly or mainly by way of manual labour," is the "substantial employer" or person engaging him to be treated for the purposes of the Act as the employer of the immediate employer's servants. This would include the "butty man," as he himself works with his men, but not the sub-contractor undertaking a large portion of work under a contract, as such persons do not themselves engage in manual labour.

The Trade Union Bill.

The Trade Union Bill has passed its second reading. Our readers have been made fully aware of the provisions of this measure by our articles of June 30, 1911, and May 24 last.

At a time when the country is in the throes of labour agitation, and when an inquiry is being promised into the causes of labour unrest, when trade unionists are claiming a monopoly of work, and labour disputes are the cause of violence, it seems curious that the status of trade unions should be entirely altered, and that political powers possessed by no corporate body or company should be granted to the unions by Parliament. It is not a question of Parliamentary representation for labour. Labour is already represented in Parliament, and no change in the law is required to permit of working men voluntarily combining and subscribing for the furtherance of their political views. The question really is, whether societies formed as friendly societies and for regulating the relations between workmen and masters and the conditions of trade, societies in those capacities possessing extraordinary statutory powers and immunities, should be converted into political associations and use their unique position for political purposes. If such a step has to be taken, it should receive the most careful consideration, and precautions should be taken that trade unions should not, owing to their privileged position, use political powers to the detriment of the public or infringe the freedom of their own members. It is to be observed that every argument used in the House for granting political powers to trade unions would apply with equal force to corporations and companies.

As the law stands, agreements between trade unions and their members cannot be enforced by a decree of any Court, a member cannot invoke the aid of the Courts to obtain benefits which may wrongfully be withheld, whilst acts committed in contemplation or furtherance of trade disputes, even if they are tortious, are privileged, and the public can obtain no redress in the Courts.

How little consideration has been given to such important points may be gathered from some of the speeches in the recent debate. The Attorney-General, confronted with the point that if members of trade unions availed themselves of the provisions contained in the Bill and refused to subscribe to political objects, they might be coerced, and benefits might even be withheld, was obliged to admit that no action could be brought against the union by the aggrieved member to obtain the payment of benefit; he only expressed a pious hope that trade unions would regard the provisions of the Act, and hinted that if this should not prove the case, an injunction might possibly be granted. In face of this, he asserted that the Government had taken ample steps to protect the rights of the minority who desired not to contribute to the political objects favoured by the unions. The leader of the Labour Party did not show even such slight consideration as this for the rights of those in the minority. He is reported as having said:—"There was nothing oppressive in saying to a man who joined a union, 'You know what it is for, and when you join it you cannot possibly set up a claim for individual rights that are contrary to its organisation.'" This might be true if a man joined a trade union as a political organisation, but as matters stand it exposes the undesirability of this Bill in a single sentence. The man joins a trade union not as a political organisation but as a trade society; he joins it in many cases because he is not allowed to work or able to obtain work unless he does join it. He must either submit to persecution and starve, or join the union, and when he does so he is informed by Mr. Ramsay Macdonald that he knew what it was for, and must accept its political doctrines.

If this Bill becomes law, it is obvious that the unions will have to be divided into political camps, and that if this is the result, relations between workmen and workmen and employers and workmen will become even more strained than they are at present. The amalgamation of trade objects and political objects is absurd, and the unions must lose their character of trade and friendly societies, and last, but not least, the character of societies administering insurance benefit.

The Bill is very bad for trade unionism, and will mark their decadence as trade societies.

One word may be added from the point of view of the general public.

There is great doubt whether sect. 4, subsect. 1, of the Trade Disputes Act, 1906, only provides immunity for tortious acts committed on behalf of trade unions "in contemplation or furtherance of trade disputes," or generally. The decisions of the Courts show a tendency to construe its provisions as general. How can this immunity from action be extended to the political action of trade unions? Libels could be published, heads could be broken, windows smashed at elections, and this section could be flaunted in the eyes of the public. The Bill makes no provision as to this, and the Government is silent upon the point, yet it is obviously one of such great importance that the only inference that can be drawn is that the Bill is not intended to pass into law in its present form, but has been read a second time at the close of the sittings to satisfy the Labour Party. The Bill is not even referred to a Committee of the whole House.

OBITUARY.

Professor Wallot.

The death, at Langenschwalbe, is announced of Professor Paul Wallot, aged seventy-one years, a member of the Academies of Berlin, Rome, and St. Petersburg, and of the Society of French Artists. Professor Wallot was the architect of the Reichstag building, for which he won the first prize in 1882, and of many buildings in Dresden, where he was appointed to a Professorship in the Academy some years ago.

FOREIGN AND COLONIAL.

Building and Electrical Accessories, Austria-Hungary (Bosnia-Herzegovina).

H.M. Consul at Sarajevo (Mr. F. G. Freeman) reports that tenders are invited for joinery, locks, painting and glazing work, electric lighting and bell work, in connexion with the building of a consumption block at the National Hospital at Sarajevo. Sealed tenders, marked "Offert für die Arbeiten im Tuberkulosen Pavillon," will be received at the "Technische Abteilung, Landesregierung," Sarajevo, up to August 28. Plans and specifications may be seen at the "Bau-Departement, Landesregierung," Sarajevo. Although the foregoing contracts will in all probability be awarded to local firms, nevertheless the carrying out of the works may involve the purchase of some materials outside Austria-Hungary.

PATENTS.

APPLICATIONS PUBLISHED.*

16,893 of 1911.—Geoffrey Arthur Carlisle Thynne and Thomas Pulling: Brick for building kilns and ovens.

16,984 of 1911.—Ernest Delille: Process of manufacturing light constructions of reinforced concrete.

17,048 of 1911.—Robert Beart Lucas: Method of getting clay, chalk, and the like, applicable also to the working of mines or making of railway cuttings.

17,066 of 1911.—Frances Dowdell Shaw: Kilns.

18,347 of 1911.—James Edward Whiting: Suspension bridges.

19,399 of 1911.—Thomas Coleman: Mode and means for treating stone or other materials for making roads and for other like purposes.

20,351 of 1911.—John Alexander Getty: Kitchen ranges.

20,704 of 1911.—James Storey Deacon and Frederick Victor Woodford: Means for enabling objects to be attached to ferro-concrete buildings and for analogous purposes.

23,360 of 1911.—Louis Harel De Le Noë: Reinforced concrete railway sleepers.

23,642 of 1911.—Joseph Anderson: Window-holders for sliding sashes.

24,271 of 1911.—Benjamin Samuel Weston: Means of straightening walls which are out of the perpendicular.

24,775 of 1911.—Axel August Wilhelm Poulsen: Process for producing an improved cement.

4,148 of 1912.—John Radcliffe: Manufacture of improved compositions applicable for making and repairing roads and other purposes.

6,980 of 1912.—Robert Henry Neal: Interlocking concrete slabs or blocks for use in building concrete walls, sheet piling, groins, and other structures.

8,437 of 1912.—William Alexander Fraser: Flushing cisterns for water-closets and disinfecting means therefor.

9,758 of 1912.—Henry Jasper Rand: System of house drainage.

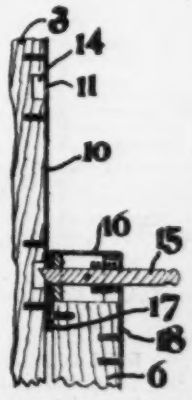
10,196 of 1912.—Edward Bignell: Concrete piling.

10,251 of 1912.—Johann August Voigt: Device for automatically cooling the atmosphere in enclosures on the attainment of a predetermined temperature, and for giving an alarm when the said temperature is exceeded.

SELECTED PATENTS.

5,465 of 1911.—William James Fee: Window fastenings.

This relates to a window-sash fastener which consists of a spring-pressed latch 15, sliding in a casing 16 having depending flanges 17, 18, for



5,465 of 1911.

attachment to the lower sash 6; the bevelled nose of the latch is adapted to pass through any one of a series of slots 11 in a plate 10

*All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

PATENTS—*continued on page 244.*

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number: Competitions, iv.; Contracts, iv. vi. viii. x.; Public Appointments, xv.; Auction Sales, xx. Certain conditions beyond those given in the following information are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

*** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.

Competitions.

AUGUST 30. — SAXON SNELL PRIZE. — Fifty guineas, with medal, is offered for essay on "The Lighting, Heating, etc., of an Operating-Room for a General Hospital." Particulars from the Sanitary Institute, 90, Buckingham Palace-road, S.W.

SEPTEMBER 1.—**Goole.**—MUNICIPAL OFFICES.—Premiums 30*l.* and 15*l.* Particulars from Mr. R. Tyson, Council Offices, Goole.

SEPTEMBER 9. — **Chorley.**—SCHOOL.—The Chorley Education Committee invite designs for Council school for about 500 children. See advertisement in issue of July 12. Premiums 30*l.*, 20*l.*, and 10*l.* Deposit, 2*l.* 2s.

SEPTEMBER 30.—**Dublin.**—UNIVERSITY COLLEGE: NEW BUILDINGS.—Limited to architects in Ireland. Assessor, Mr. H. T. Hare, F.R.I.B.A.

SEPTEMBER 30.—**Llanelly.**—SCHOOL, ETC.—The Llanelly Education Committee invite competitive designs and estimates for school buildings and domestic subjects centre at Stebonheath-terrace. Assessor, Mr. G. E. Halliday, F.R.I.B.A. See advertisement in issue of August 2 for further particulars.

OCTOBER 14.—**Balham.**—SWIMMING BATH.—The Wandsworth B.C. invite designs for a Public Swimming Bath. See advertisement in issue of August 16 for further particulars.

OCTOBER 29.—**Glasgow.**—DESIGNS FOR EXTENSION OF MUNICIPAL BUILDINGS.—The Glasgow Corporation invite architects to submit preliminary sketch designs in competition for the extension of the Municipal buildings. Five will be selected to submit complete drawings in final competition. See advertisement in issue of July 12. Dr. Burnet, assessor. Deposit, 1*l.* 1s

OCTOBER 31. — **Huddersfield.** — TOWN PLANNING.—The Housing and Town Planning Committee of the Huddersfield Corporation invite designs for the laying-out of certain areas within the county borough and part of an adjacent suburb. Premiums 100gs., 50gs., and 25gs. Deposit of 2*l.* 2s. See advertisement in issue of August 2 for further particulars.

NOVEMBER 1.—**Ottawa.**—MONUMENT TO KING EDWARD VII.—Sketch models in plaster to be sent to the Director of National Art Gallery, Ottawa. Particulars from the Public Works Department, Ottawa (see p. 174, August 9).

DECEMBER 1.—**Bulgaria.**—DESIGNS FOR A ROYAL PALACE AND LAW COURTS.—Particulars from the Commercial Intelligence Branch of the Board of Trade, Basinghall-street, E.C. (see p. 173, August 9).

DECEMBER 2.—**Carlisle.**—SCHOOL BUILDINGS, ETC.—Particulars from the City Surveyor, 36, Fisher-street, Carlisle.

* FEBRUARY 1, 1913.—**Rangoon.**—MUNICIPAL BUILDINGS.—The Committee of the Municipality of Rangoon invite designs for the new Municipal Buildings. Honoraria of 300*l.*, 200*l.*, and 100*l.* respectively for first, second, and third. See advertisement in August 2 and present issue for further particulars.

NO DATE.—**Doncaster.**—SWIMMING BATH, ETC., FOR YORKSHIRE INSTITUTION FOR THE DEAF.—Premiums, 50*l.* Information from Mr. B. D. Crouch, 6, Hall-gate, Doncaster.

NO DATE.—Jordanhill, Glasgow.—PROPOSED TRAINING COLLEGE.—Limited to six firms, named in "Competition News," December 1, page 635.

NO DATE. — **Motherwell.**—HIGH SCHOOL.—Dr. Burnet, assessor. Premiums 50*l.*, 30*l.*, and 20*l.*

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

AUGUST 24.—**Banwen.**—CHAPEL.—Erection of small C.M. Chapel at Banwen, near Onllwyn, Neath. Plans and specification with Mr. J. S. Griffiths, architect and surveyor, Seven Sisters, Neath.

AUGUST 26.—**Portsmouth.**—STORE.—For erection of a store for school supplies in the infants' playground of the Arundel-street Council School. Plans and specifications by the Surveyor, Mr. A. H. Bone, Cambridge Junction, Portsmouth.

AUGUST 26.—**Stockport.**—WALL.—Erection of a boundary wall adjoining the Stepping Hill Hospital, Hazel-grove. Specifications seen, and particulars and forms of tender from Messrs. Peirce & Son, architects, St. Petersgate, Stockport.

AUGUST 27.—**Consett.**—ALTERATIONS.—For the proposed alterations, refitting, etc., at new Town Hall. Plans, specification, and conditions with Mr. J. J. Eltringham, Lic.R.I.B.A., architect and surveyor, Derwent-street, Blackhill.

AUGUST 27.—**Keighley.**—PAVILION.—Erection of a cubicle isolation pavilion for twelve beds at the Infectious Diseases Hospital, Morton Banks, Keighley. Drawings seen, and quantities from Messrs. Moore & Crabtree, architects, York-chambers, Keighley.

AUGUST 27.—**Newport, Mon.**—SHOP.—For erection of electric car paint shop on site at Corporation-road. Plans and quantities, with forms of tender, from the Borough Architect, Mr. C. F. Ward, A.R.I.B.A., Town Hall. Deposit of 1*l.* 1s.

AUGUST 28.—**Alford.**—ADDITIONS.—For additions to the Alford village public school. Plans and specifications with Mr. J. Reid, Brainley, Alford, and with Messrs. D. & J. R. M'Millan, architects, 105, Crown-street, Aberdeen. Quantities from the architects.

AUGUST 28.—**Botusfleming.**—REPAIRS.—For re-roofing and general repairs to Hatt House, Botusfleming. Plans and specifications with Mr. Harold A. Hosking, architect, Landrake, St. Germans. Deposit of 2*l.* 2s.

AUGUST 28.—**Glamorgan.**—SCHOOLS, ETC.—The Glamorgan County Council invite tenders for the following works: New school at Bettws, near Bridgend; new school at Blaengwrach, near Neath; new school at Pontlliw, near Pontardulais (removal of temporary building from Gorseinon and foundation for same); new mixed school at Trebanos, near Pontardawe; Pontardulais Infant School, new heating chamber; Gowerton Girls' and Infants' school, alterations to offices. Plans and specification seen, and quantities at the Bridgend Police-station, Neath Police-station; Gowerton Police-station, Pontardawe Police-station, and Pontardulais Police-station. Mr. T. Mansel Franklen, Clerk of the County Council, Glamorgan County Council Offices, Westgate-street, Cardiff.

AUGUST 29. — **Driffield.** — ALTERATIONS. — For alterations to doors and other works at the fire-engine house, York-road. Specification and plan at the office of Mr. H. Brown, Clerk, 33, Exchange-street, Driffield.

AUGUST 29.—**Manchester.**—HOME, ETC.—The Guardians of the Poor of the Township of South Manchester invite tenders for the erection of a nurses' home and additions to the hospital matron's office, sisters' dining-room, and maids' dining-room at the Withington Workhouse. Quantities from, and plans seen at, the offices of Mr. Frederick H. Overmann, F.M.S.A., 48, King-street, Manchester. Deposit of 1*l.* 1s.

AUGUST 29.—**Truro.**—RESIDENCES.—For the erection of four residences at The Avenue, Truro. Plans and specifications with Mr. Leonard Winn, architect and surveyor, 27, Boscawen-street, Truro.

* AUGUST 30.—**Sutton Coldfield.**—SCHOOL.—The Staffordshire Education Committee invite tenders for new Council school at Streetly, near Sutton Coldfield. See advertisement in this issue for further particulars.

AUGUST 31.—**Abercanaid.**—HOUSES.—For the erection of a pair of semi-detached houses at Abercanaid, for Messrs. T. & J. Williams. Plans and specification with Mr. T. Edmund Rees, architect, Bank-chambers, Merthyr Tydfil.

AUGUST 31.—**Blandford.**—COTTAGE.—For erection of a new cottage on holding No. 12, Winterborne Zelston, near Blandford. Plans and specifications at the office of the County Land Agent, County Offices, Dorchester.

AUGUST 31.—**Cheriton.**—COTTAGE.—Erection of a cottage at Landimore Farm, Cheriton, Gower. Plan seen, and specification from Messrs. Hartland, Isaac, Watkins, & Lewis, 7, Rutland-street, Swansea.

AUGUST 31.—**Dyserth.**—ADDITIONS.—For additions and alterations to Holly Cottage, Ochr-y-Foel, Dyserth. Plans and specifications from Mr. Williams, Clwyd Villa, Dyserth.

AUGUST 31.—**Gravesend.**—ROOMS.—For the erection of a sterilising-room, storeroom, etc., at the hospital. Specification obtained, and plans with the architect, Mr. Wm. M. Dean, A.R.I.B.A., 21, Park-place, Gravesend.

AUGUST 31.—**Hyde.**—HALL, ETC.—Erection of a public hall, police courts, offices, and other works in Corporation-street, Water-street, and Greenfield-street, Hyde. Plans and specifications seen, and quantities and particulars from the Borough Surveyor, Mr. James Diggle, Assoc.M.Inst.C.E., Town Hall, Hyde, on deposit of 3*l.* 3s.

AUGUST 31.—**Leicester.**—EXTENSION.—For erection of steel roof trusses, lattice girders, and columns required for an extension of the main car depôt, Abbey Park-road. Plans seen, and general conditions, specification, and quantities, on deposit of 1*l.*, from Mr. E. George Mawbey, M.Inst.C.E., Borough Engineer, Town Hall, Leicester.

AUGUST 31. — **Ruthin.** — REPAIRS, ETC. — The Trustees of Bethania C.M. Chapel invite tenders for repairs and alterations to the schoolroom and vestry. Plan and specification inspected at Fron, Ruthin, and specification, with particulars, from the architect, Mr. F. A. Roberts, M.S.A., Earl-chambers, Mold.

* AUGUST 31.—**Swansea.**—NEW BUILDINGS.—The Swansea Exchange Buildings, Ltd., invite tenders for new Exchange buildings at corner of Adelaide-street and Cambrian-place. See advertisement in this issue for further particulars.

AUGUST 31.—**Swinton.**—WALL.—For the construction of a wall across a reservoir, about 43 yds. long, in reinforced concrete. Particulars from Mr. Henry Entwisle, Council Offices, Swinton, Manchester.

SEPTEMBER 1.—**Minehead.**—CONVENIENCE, ETC.—Erection of convenience and ladies' cloakroom on the sea front, Minehead. Specification and quantities obtained, and drawings, on deposit of 2*l.* 2s. to Mr. L. C. Webber-Incledon, Clerk, 3, Bancks-street, Minehead, Somerset.

SEPTEMBER 2. — **Aberdeen.** — EXTENSION.—For extension of fish market along Albert Quay. Plans and details seen, and specification, quantities, and form of tender from Mr. W. Dyack, M.Inst.C.E., Burgh Surveyor, Burgh Surveyor's Office, Town House, Aberdeen.

SEPTEMBER 2.—**Cottingham.**—HALL.—For erection of a parish hall. Drawings seen, and quantities from the architect, Mr. A. C. Blackmore, 3, Alfred Gelder-street, Hull.

SEPTEMBER 2.—**Dartford.**—WORKS.—For the execution of certain works at the Workhouse, West-hill, Dartford. Plan and specification with Messrs. Tait & Hobbs, architects, Lowfield-street, Dartford.

SEPTEMBER 2.—**New Malden.**—EXTENSION.—For the proposed extension to the mortuary at the rear of the municipal buildings. Drawings inspected, and conditions, specification, and quantities from the Engineer and Surveyor, Mr. R. H. Jeffes, A.M.Inst.C.E., at the Municipal Offices, New Malden. Deposit of 2*l.* 2s.

* SEPTEMBER 3. — **Barnet.** — COTTAGES.—The Barnet U.D.C. invite tenders for workmen's dwellings in Totteridge-lane. See advertisement in this issue for further particulars.

SEPTEMBER 3.—**Merthyr Tydfil.**—SCHOOL.—For the erection of girls' school and domestic subjects block at Troedyrhiw. Particulars from the Borough Architect, Town Hall, Merthyr Tydfil

SEPTEMBER 3. — **Southampton.**—REBUILDING.—For the rebuilding of 7, 8, and 9, and the reinstatement of 11, Bridge-street, Southampton. Plans and particulars at the offices of Mr. W. B. Hill, architect and surveyor, 93, Above Bar, Southampton. Quantities on payment of 5s.

SEPTEMBER 3. — **Stroud.** — ALTERATIONS.—For carrying out alterations at Roxburgh House, Stroud. Plans and specifications at the office of Mr. G. P. Milnes, 7, Rowcroft, Stroud.

SEPTEMBER 3.—**Tredegar.**—HOUSES.—Erection of ten houses in blocks I and J, and eighteen houses in blocks O, P, and Q, at Park-view, Tredegar, for the Cwmrhos Building Club. Plans and specifications with Messrs. Wm. Harris & Son, architects and surveyors, Bank-chambers, Bargoed.

SEPTEMBER 4.—**Bedwas.**—HOUSES.—Erection of twenty-six or more houses on the estate of Joseph Davies, deceased, Bedwas, for the Grove Building Club, Bedwas. Plans and specifications with Mr. Gomer L. Rees, architect and surveyor, Tydfil-road, Bedwas.

SEPTEMBER 6. — **Golcar.**—SCHOOL ADDITIONS.—The West Riding Education Committee invite whole or separate tenders for the following works:—Golcar: Crow-lane Council school—additional classroom (builder, joiner, slater, plumber, plasterer, and painter). Plans may be seen, and specifications with quantities obtained, on application to the Education Architect, County Hall, Wakefield. A sum of 1*l.* must be sent by separate letter to the West Riding Treasurer, County Hall, Wakefield

BUILDING—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

SEPTEMBER 7.—**Bandon.**—IMPROVEMENTS.—For improvements and repairs to forty-seven houses, and for rebuilding three others, in Bandon. Plans and specifications by Messrs. Chillingworth & Levie, civil engineers and architects, 11, South-mall, Cork.

SEPTEMBER 9.—**Dublin.**—STATION.—For erection of new Dublin Metropolitan Police-station, in Great Brunswick-street, Dublin. Plans and specification seen, and forms of tender and quantities, on deposit of 1*l.*, from Mr. H. Williams, Secretary, Office of Public Works, Dublin.

SEPTEMBER 9.—**Ebbw Vale.**—HOUSES.—For the erection of proposed 100 or more houses, in three classes, near steelworks, Ebbw Vale, for the Gwalia Building Club. Plans and specifications with Messrs. Wm. Harris & Son, architects and surveyors, Hank-chambers, Bargoed.

* SEPTEMBER 10.—**Folkestone.**—EXTENSION OF POST-OFFICE.—The Commissioners of H.M. Works and Public Buildings invite tenders for extension of post-office. See advertisement in this issue for further particulars.

SEPTEMBER 10.—**Sulby.**—CHAPEL.—For erection of a new chapel. Plans and particulars from Mr. J. E. Teare, Athol-street, Douglas.

* SEPTEMBER 12. — **Clapton.** — ELECTRICITY WORKS EXTENSION.—The Hackney B.C. invite tenders for extension of Electricity Works at Millfields-road, Clapton, N.E. See advertisement in this issue for further particulars.

SEPTEMBER 12.—**London.**—EXTENSION.—Erection of the buildings required for an extension of electricity works at Millfields-road, Clapton, N.E., on the River Lea. Plans and specification seen, and general conditions, quantities, form of tender, and form of agreement from the architects, Messrs. Gordon & Gunton, Finsbury-house, Blomfield-street, E.C. Deposit of 2*l.* 2s.

SEPTEMBER 12.—**London.**—SHOPS.—Erection of workshops on a site adjoining the Receiving Homes, Aldersbrook-road, Wanstead, N.E. Drawings and specification by Architect, Mr. William Jacques, A.R.I.B.A., 2, Fen-court, Fenchurch-street, E.C. Deposit of 1*l.*

* SEPTEMBER 14. — **Towcester.**—HOUSES.—The Towcester R.D.C. invite tenders for seventeen houses. See advertisement in this issue for further particulars.

SEPTEMBER 21.—**Bexhill.**—WALL, ETC.—The proprietors of the Kursaal, Bexhill-on-Sea, invite tenders for the reinstatement of the wall to the gardens and storm-water duct, the whole to be in concrete supported by six mild-steel stanchions. Plans, conditions, and specification from Mr Louis Burn, A.M.Inst.Mech.E., consulting engineer, 6, Holborn Viaduct, London, E.C., on deposit of 10s.

* SEPTEMBER 21.—**Biggin Hill.**—SCHOOL.—The Kent Education Committee invite tenders for new Council school at Cudham, Biggin Hill. See advertisement in this issue for further particulars.

NO DATE.—**Cornelscourt.**—SCHOOLS.—For the erection of new National schools at Cornelscourt, Co. Dublin, from the designs of Messrs. Orpen & Dickinson, architects, 13, South Frederick-street, Dublin. Plans and specification seen, and quantities at the offices of the quantity surveyors, Messrs. Beckett & Medcalf, 6, Clare-street, Dublin, on deposit of 1*l.* 1s.

NO DATE.—**Gloucester.**—INFIRMARY.—Erection of proposed new Infirmary in Great Western-road, Gloucester. Names to the architect, Mr. Walter B. Wood, A.R.I.B.A., 12, Queen-street, Gloucester. Quantities by Messrs. Vale & Kingsford, St. Aldate-street, Gloucester, on deposit of 5*l.*

NO DATE.—**Llanhilleth.**—HOUSES.—For the erection of thirty-seven houses at Llanhilleth. For particulars apply Mr. C. Telford Evans, Central Hotel, Llanhilleth.

NO DATE.—**Machynlleth.**—REBUILDING.—For rebuilding the White Horse Hotel premises at Machynlleth. Plans, specification, and particulars from Messrs. Deakin & Howard Jones, M.S.A., Plas Ynys, Borth, R.S.O.

NO DATE.—**Merioneth.**—VENTILATING.—For builders' work in connexion with the ventilating of Tanygrisiau Infants' Council School. Plans, specification and particulars from the County Architects, Messrs. Deakin & Howard Jones, M.S.A., Plas Ynys, Borth, R.S.O.

NO DATE.—**Pontefract.**—ALTERATIONS.—For alterations to the bank, Market-place, Pontefract, for Messrs. Barclay & Co. Quantities, etc., from Messrs. Garside & Pennington, architects, Pontefract.

NO DATE.—**Ratho.**—BAKERY.—For new bakery at Ratho Station, for the Hillwood Co-operative Society, Ltd. Surveyors, Messrs. Robert Murray & Son, 50, George-street, Edinburgh. Deposit of 10s. 6d.

NO DATE.—**Wakefield.**—RESERVOIR.—For the construction of storage reservoir at East Ardsley, near Wakefield. Quantities, etc., from Messrs. Thomas Ambler & Sons, Atlas Mills, Bradford.

NO DATE.—**Warrington.**—BLOCK.—Erection of a boys' block at the County Asylum, Winwick. Plans seen, and quantities obtained from the architect, Mr. Thomas Chadwick, 16, Princess-street, Manchester. Deposit of 1*l.* 1s.

ENGINEERING, IRON, AND STEEL.

AUGUST 24.—**Boston.**—HEATING.—For heating work at Whaplode Shiphay Stow Council School. Plans seen, and specifications from Mr. E. J. A. Christie, County Architect, Market-place, Boston.

AUGUST 28.—**Aylesbury.**—TANK, ETC.—For the construction of an underground sewage tank and extension of the engine-room at the Buckingham-road pumping-station. Drawings seen, and quantities, specification, and form of tender from Mr. W. H. Taylor, Engineer and Surveyor to the Council, Town Hall, Aylesbury. Deposit of 1*l.* 1s.

AUGUST 28.—**Chelmsford.**—BRIDGE.—For widening the Springfield Bridge at Chelmsford. Drawings seen, and quantities from Mr. Percy J. Sheldon, M.Inst.C.E., County Surveyor, County Surveyor's Office, Chelmsford.

AUGUST 28.—**Coggeshall.**—BRIDGE.—For widening the existing three-arch brick structure known as St. Stephen's Bridge, which spans the River Blackwater at Coggeshall. Drawings seen, and quantities from Mr. Percy J. Sheldon, M.Inst.C.E., County Surveyor, County Surveyor's Office, Chelmsford.

AUGUST 28.—**Rochdale.**—HEATING.—For installation of heating system at the Workhouse Infirmary, Dearnley. Names and addresses, with deposit of 1*l.* 1s., to Mr. R. A. Leach, Union Clerk, Union Offices, Townhead, Rochdale.

AUGUST 29.—**Clonskeagh.**—WIRING.—For the electric wiring of two of the hospital buildings, the staff residence, gate lodge, and also electric lighting of drive at Isolation Hospital at Clonskeagh. General conditions, specification, and form of tender from the Matron, Isolation Hospital, Vergemount, Clonskeagh, on payment of 2s. 6d.

AUGUST 31. — **Cheltenham.** — SEWAGE. — Construction of nine combined circular sewage tanks, in three sets, and eight percolation filters, 101 ft. diameter, with the necessary roads, drains, conduits, and other works incidental thereto. Specification and quantities obtained, and drawings seen with Mr. J. S. Pickering, M.Inst.C.E., Borough Engineer, Municipal Offices, Cheltenham. Deposit of 3*l.* 3s.

AUGUST 31.—**Dawlish.**—WELLS.—The Dawlish Gas and Coke Company, Ltd., invite tenders for the conversion of a gasholder tank to tar and liquor storage wells. Drawing and specification, on deposit of 10s. 6d., from Mr. W. E. Thornhill, Secretary, Lansdown-place, Dawlish.

* SEPTEMBER 3.—**London, S.W.**—STEEL SASHES.—The Commissioners of H.M. Works and Public Buildings invite tenders for supply and fixing of steel sashes at Telephone Exchange, Victoria. See advertisement in this issue for further particulars.

SEPTEMBER 4. — **Clacton.** — PUMPING MAIN.—Clacton U.D.C. invite tenders for supplying and laying about 1,266 yds. of 11-in. cast-iron pumping main. Copies of the specification, etc., may be obtained, upon payment of 1*l.* 1s., from the Engineer, Mr. Sydney Francis, A.M.Inst.M.E., Town Hall-buildings, Clacton-on-Sea.

SEPTEMBER 4.—**Hollingbourne.**—BOILER, ETC.—Erection at Workhouse, Hollingbourne, near Maidstone, of a new Cornish steam boiler and boiler-house. Particulars and specifications from Mr. E. A. Gardiner, of 5, Brewer-street, Maidstone, consulting engineer.

SEPTEMBER 4.—**Walmer.**—SEA OUTFALL.—Construction of about 3,600 lin. yds. of concrete tube and stoneware pipe sewers and surface-water drains, varying from 36 in. to 9 in. in diameter, 36-in. cast-iron sea outfall, about 450 yds. in length, and concrete storage tank, together with the necessary manholes, flushing chamber, ventilating shafts and lamps, and other works in connexion therewith. Plans, sections, and drawings seen, specification, quantities, and form of tender from Mr. Herbert W. Barker, the Council's Engineer, Council Offices, Walmer, on deposit of 5*l.*

OCTOBER 9.—**Bradford.**—SEWER.—For the construction of a circular outfall sewer in tunnel, from Frizinghall to Strangford, 10 ft. in diameter and 4,807 yds. in length, with two shafts, 9 ft. diameter, 83 yds. and 104 yds. in depth, with observatories, object pillars, etc. Drawings seen, and specification, conditions of contract, quantities, and form of tender from Mr. James Watson, M.Inst.C.E., Waterworks Engineer, Town Hall, Bradford, or of Mr. Joseph Garfield, Assoc.M.Inst.C.E., Sewage Works Engineer, Esholt Hall, near Shipley. Deposit of 5*l.* 5s.

FURNITURE, PAINTING, MATERIALS, etc.

AUGUST 24.—**Cardiff.**—PAINTING.—For internal painting at Workhouse. Mr. A. J. Harris, Clerk, Union Offices, Queen's-chambers, Cardiff.

AUGUST 28.—**Manchester.**—FITTINGS.—For providing and fixing electric light fittings at the Atherton-street Municipal School, Deansgate, Manchester. Specification and quantities at the Education Offices, Deansgate, Manchester, on deposit of 1*l.* 1s.

AUGUST 28.—**Tolworth.**—PAINTING, ETC.—For painting and repairs at the Hospital, Tolworth. Specifications and forms of tender from Mr. A. Jessop Hardwick, F.R.I.B.A., Eagle-chambers, Kingston-on-Thames.

AUGUST 30.—**Macclesfield.**—PAINTING.—For the external painting of the Humphries Ward and administrative block at the Isolation Hospital, Moss-lane. Specification from Mr. Chas. W. Stubbs, Borough Surveyor.

SEPTEMBER 3.—**Rochester.**—MATERIALS.—For supply of following materials:—Tools, Portland cement, brooms, oils, and sundries, paving materials, road metal. Specifications and forms of tender from Mr. William Banks, A.M.Inst.C.E., City Surveyor, Guildhall, Rochester.

ROADS, SANITARY AND WATER WORKS.

AUGUST 24.—**Prestwich.**—ROAD.—For private street improvement in Highfield-road, Back Bailey-street, Back Bury New-road, Matherave nue, Mildred-avenue, and Mowbray-avenue. Plan, specification, and quantities at the office of the Surveyor, Council Offices, Prestwich. Quantities on deposit of 2*l.* 2s.

AUGUST 26.—**Stone.**—SEWAGE.—For the laying of sewers, construction of manholes, etc., at Lightwood. Particulars with the Engineer, Mr. John Twist Snape, 5, Lad-lane, Newcastle-under-Lyne, on deposit of 5*l.*

AUGUST 27.—**Bolton.**—ROAD.—Formation of a new road from Plodder-lane to the Cottage Homes in Farnworth. Plans inspected, and quantities from Mr. John Ward, architect, 24, Mawdesley-street, Bolton.

AUGUST 28.—**Chelmsford.**—WATER MAINS.—For the laying of water mains in Bishop's-road, Marconi-road, Swiss-avenue, and new road off Rainsford-lane. Forms of tender obtained, and the plans and specification at the office of the Borough Engineer, 16, London-road.

AUGUST 31.—**Clayton-le-Moors.**—PAVING.—For the taking-up and relaying of about 400 lin. yds. of kerbs, and paving, with granite on a concrete foundation, about 2,000 super. yds. in Barnes-street. Also repairing about 800 super. yds. in Whalley-road. Specifications seen, and forms of tender from Mr. A. Dodgeon, Assoc.M.Inst.C.E., Surveyor to the Council.

AUGUST 31.—**Dorking.**—TAR MACADAM.—The U.D.C. invite tenders for slag tar macadam for surfacing 4,043 sq. yds. of road. Specification, etc., may be obtained on application to the Town Surveyor, Mr. William A. Clegg, M.Inst.M. and Cy.E.

AUGUST 31.—**Littlehampton.**—GRANITE.—For the supply of 300 to 400 tons of Guernsey or other approved granite, also for granite chips. Forms of tender from the Council's Surveyor, Mr. H. Howard, F.S.I., Town Offices, Littlehampton.

AUGUST 31.—**St. Columb.**—SEWAGE.—For constructing sewers and underdrains, and laying out irrigation ground and other work in connexion with the sewerage of St. Columb Major. Plans and specifications by Mr. R. Hansforth Worth, M.Inst.C.E., Plymouth.

SEPTEMBER 2.—**Aspatria.**—SEWAGE.—For the construction of sewage-disposal works, consisting of detritus tanks, open septic tanks, storm-water tanks, and percolating filters, with all contingent work. Plans, sections, and specification at the Council Offices, Aspatria, and at the office of the engineers, Messrs. Spinks, Pilling, Rodwell, 20, Park-row, Leeds. Quantities on deposit of 2*l.* 2s.

SEPTEMBER 3.—**Middleton.**—STREET.—For the making-up of Hanson-street. Plans seen, specifications, form of tender, and quantities from Mr. W. Welburn, Borough Surveyor, Town Hall, Middleton. Deposit of 10s. 6d.

SEPTEMBER 3. — **Southampton.** — ROADS.—For executing private street works in the following roads, viz., Shaftesbury-avenue, Leighton-road, Suffolk-avenue, Darwin-road, and Morris-road. Plans, specifications, and conditions inspected, and quantities and forms of tender from the Borough Engineer, Municipal Offices, Southampton. Deposit of 1*l.* 1s.

SEPTEMBER 4.—**Skipton.**—ROADWAY.—For the construction of a roadway, 15 ft. in width and about 250 yds. in length, at the Recreation Ground. Plans and specification seen, and form of tender from Mr Aldridge, Town Hall, Skipton.

SEPTEMBER 6.—**Southend.**—ROAD.—For road and formation works in connexion with the construction of a boulevard 1¼ miles in length and 100 ft. in width. Plans inspected, form of tender, quantities, and specification from the Borough Engineer, Mr. Ernest J. Elford, M.Inst.C.E., Municipal-buildings, Clarence-road, Southend-on-Sea, on deposit of 5*l.* 5s.

SEPTEMBER 9.—**Itchen.**—ROADS.—For executing street works in ten roads. Plans, specification, and conditions with Mr. T. A. Collingwood, Surveyor, Council Offices, Portsmouth-road, Woolston. Quantities and form of tender on deposit of 2*l.* 2s.

SEPTEMBER 9.—**Newington.**—SEWAGE.—For extension of sewers at Newington. Plans and specifications with the Engineer, Mr. Leonard B. Grant, High-street, Sittingbourne.

SEPTEMBER 9.—**Tredegar.**—SEWAGE.—For the construction of subsidiary sewers. Plans at the office of the Engineer to the Council, Mr. Wm. Lloyd Roach, Bedwellty House, Tredegar. Specification, schedule, and quantities on deposit of 5*l.* 5s.

SEPTEMBER 12.—**Fishguard.**—ROAD.—For the construction of 833 lin. yds. of roadway, together with retaining and parapet walls, wire fences, surface-water drains, etc., at Dinas-hill, Fishguard. Plans and specification, conditions of contract, and form of contract seen, and quantities, with form of tender, at the Shire Hall, Haverfordwest, on deposit of 3*l.* 3s.

SEPTEMBER 24.—**Lewes.**—SEWAGE.—For the construction of main intercepting sewers, and for the construction of sewage-disposal works, comprising screen chambers, buildings, settlement and storm tanks, tidal storage tanks, sludge-drying beds, low-level pumping station, and contingent works. General conditions, specification, quantities, and form of tender obtained, and drawings inspected, at the office of the engineers, Messrs. Brierley, Holt & Co. (Arthur Hindle, M.Inst.C.E., and P. Holt Whitaker, A.M.Inst.C.E.), 46, Abingdon-street, Blackpool. Deposit of 5*l.* 5s.

Public Appointments.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*ARCHITECTURAL ASSISTANT	County of Hereford	150l. per annum	Sept. 2
*CLERK OF WORKS	Coventry Corporation	4l. 4s. per week	Sept. 9

Auction Sales.

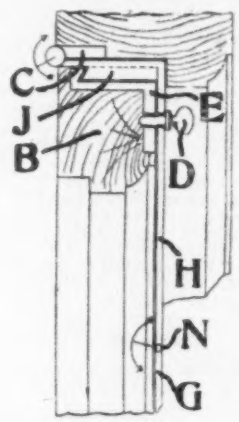
Nature and Place of Sale.	By whom Offered.	Date of Sale.
*DEALS, BATTENS, BOARDS, TIMBER, ETC.—Great Hall, Winchester House, E.C.	Churchill & Sim	Aug. 28
*WOODWORKING MACHINERY, STRATFORD, E.—On the Premises	Fuller, Horsey, Sons, & Cassell	Aug. 30
*BUILDING MATERIALS, NORWOOD—On the Site	Veryard & Yates	Sept. 5
*COMMERCIAL MOTOR CHASSIS, WEST HAMPSTEAD—On the Premises	Stuart A. Curzon	Sept. 11

PATENTS—*continued from page 241.*

on the upper sash 3, and enter recesses 14 behind the plate.

6,146 of 1911.—Albert Flint: Casement hinges.

This relates to casement windows which are carried by double hinges comprising flaps C, H, G, the middle flap H of which is constructed with a wedge-shaped lug J adapted to

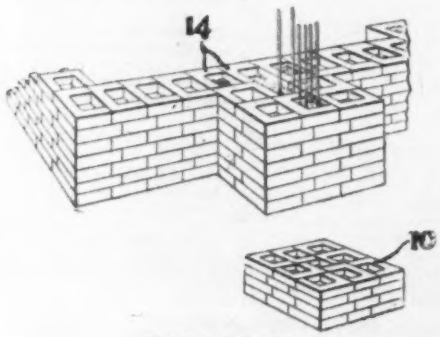


6,146 of 1911.

engage a corresponding recess in an angle-plate E secured to the casement B, a set-screw D holding the parts in engagement. A firmer mounting of the casement for normal opening is thus effected, and on removal of the screw the casement may be turned inside out on the pivot N for cleaning.

7,075 of 1911.—Frank McMurray Sawyer: Walls and columns.

This relates to a wall built of U-shaped blocks and consists in forming vertical ventilating passages. The parallel portions of the

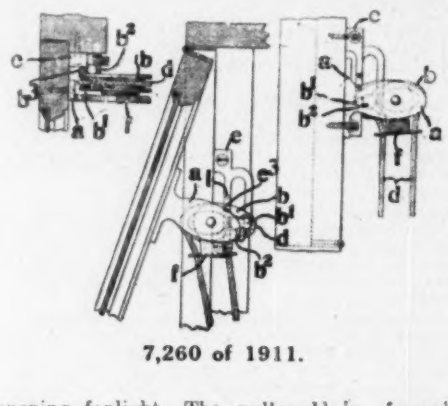


7,075 of 1911.

blocks form the inner and outer faces of the wall, and at the junctions of the piers L-shaped blocks 14 or flat fillers are used. The blocks are reversed in adjacent courses. Columns 10 are formed as shown. Concrete and reinforcing rods may be applied in the vertical passages.

7,260 of 1911.—William Henry Tonks and Walter Sparks: Fanlight opening and closing apparatus.

This relates to apparatus for opening and closing fanlights consisting of a cord-operated a slotted plate e mounted on the fanlight light or its frame, and having a pin b^2 engaging a slotted plate e mounted on the fanlight frame or fanlight. The slotted plate e is formed with two sets of screw-holes to enable it to be fitted to the face of either stile of an inwardly-opening fanlight or to the side of either stile of the frame of an outwardly-



7,260 of 1911.

opening fanlight. The pulley b^1 is of oval shape, and the cord d, which is secured to a pin b^1 on the pulley, passes through a slotted cord-guide f pivotally mounted on the bracket a. In the case of outwardly-opening fanlights, the motion of the pin b^2 in the slotted bracket is limited to prevent slight opening of the fanlight after it has come to its closed position by the engagement of a projection b^3 on the pulley with a set-screw e^3, which occupies one of a pair of holes l in the bracket e, according to whether the apparatus is fitted on the right or left hand side of the fanlight.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

August 1.—By ROBERT NEWMAN.

Hayes, Middlesex.—House and shop, f.	£335

August 2.—By WHITTON & LAING.

Whimple, Devon.—Periton Farm, 86 a. 2 r. 30 p., f.	3,025

August 7.—DEBENHAM, TEWSON, RICHARDSON, & Co.

Wartling, Sussex.—Horse Shoe Inn and 3 r. 8 p., f.	1,200

August 8.—By BRUTON, KNOWLES, & Co.

Alvington, Glos.—Alvington Court Estate, 499 a. 3 r. 6 p., f.	15,191

By FRANK STUBBS.

Botley, Hants.—Arable and woodland, 44 a. 0 r. 29 p., f.	1,800
Portland House, f.	850

August 9.—By R. S. BALDEN.

Netherton.—House and 6 a. 1 r. 20 p., f.	350
Balk Cottage and 2 r. 25 p., f.	175
Horbury, Yorks.—Cottage and wharf, 1 a. 2 r. 15 p., f.	125
Kiln House and 1 r. 9 p., f.	205

By GIDDY & GIDDY.

Chagford, Devon.—Yardworthy Farm, 180 a. 2 r. 23 p.	2,950

August 13.—By J. HANNAFORD & SON.

Meeth, Devon.—Meeth Estate, 1,886 acres, f.	29,519

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. for public-house; o. for offices; s. for shops; ct. for court.

TO CORRESPONDENTS.

NOTE.—All communications with respect to literary and artistic matters should be addressed to "THE EDITOR" (and not to any person by name); those relating to advertisements and other exclusively business matters should be addressed to "THE PUBLISHER," and *not* to the Editor.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications; and the Editor cannot be responsible for drawings, photographs, manuscripts, or other documents, or for models or samples, sent to or left at this office, unless he has specially asked for them.

All drawings sent to or left at this office for consideration should bear the owner's name and address on either the face or back of the drawing. Delay and inconvenience may result from inattention to this.

Any commission to a contributor to write an article, or to execute or lend a drawing for publication, is given subject to the approval of the article or drawing, when received, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

PRICES CURRENT OF MATERIALS.

***** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.**

BRICKS, &c.

Per 1000 Alongside, in River.	£ s. d.
Best Stocks	1 14 0
Picked Stocks for Facings	2 10 0

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Flettons	1 13 0	Best Blue Pressed Staffordshire	3 15 0
Best Fareham Red	3 12 0	Do. Bullnose	4 0 0
Best Red Pressed Buabon Facing	5 0 0	Best Stourbridge Fire Bricks	4 0 0
GLAZED BRICKS—			
Best White, Ivory, and Salt Glaz'd Str'tch'rs	12 7 6	Double Headers One Side and two Ends	14 17 6
Headers	11 17 6		18 17 6
Quoins, Bullnose, and 4½ in. Flats	15 17 6	Two Sides and one End	19 17 6
D'ble Stretchers	17 17 6	Splays & Squints	17 7 6

Second Quality £1 10s. per 1000 less than best.

	s. d.	
Thames and Pit Sand	6 9	per yard, delivered.
Thames Ballast	5 6	" "
Best Portland Cement	34 0	per ton, "
Best Ground Blue Lias Lime	19 0	" "

NOTE—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 13s. 6d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly dpt.

STONE.

Per Ft. Cube.

	s. d.
BATH STONE—delivered on road waggons, Paddington Depôt	1 7½
Do. do. delivered on road waggons, Nine Elms Depôt	1 0½
PORTLAND STONE (20 ft. average)—	
Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 3
White Basebed, delivered on road waggons Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 4½

Per Ft. Cube, delivered at Railway Depôt.

	s. d.		s. d.
Ancaster in blocks	1 10	Closeburn Red Freestone	2 0
Beer in blocks	1 6	Red Mansfield Freestone	2 4
Greenshill in blocks	1 10	Talacre & Gwespyr Stone	2 4
Darley Dale in blocks	2 4		
Red Corsehill in blocks	2 3		

STONE (*Continued*).

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depôt. s. d.
Scappled random blocks 2 10

Per Ft. Super., Delivered at Railway Depôt.
6 in. sawn two sides landings to sizes (under 40 ft. super.) 2 3
6 in. rubbed two sides ditto, ditto 2 6
6 in. sawn two sides slabs (random sizes) 0 11½
3 in. sawn two sides one side slabs (random sizes) 0 7
2 in. to 2½ in. sawn one side slabs (random sizes) 0 7
1½ in. to 2 in. ditto, ditto 0 6

HARD YORK—
Per Ft. Cube, Delivered at Railway Depôt.
Scappled random blocks 3 0

Per Ft. Super., Delivered at Railway Depôt.
6 in. sawn two sides landing to sizes (under 40 ft. super.) 2 8
6 in. rubbed two sides ditto 3 0
3 in. sawn two sides slabs (random sizes) 1 2
2 in. self-faced random flags 0 5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£ s. d.	In. In.	£ s. d.
20×10 best blue Bangor	13 2 6	20×10best Eur'ka unfading green	15 17 6
20×12 ditto	13 17 6	20×12 ditto	18 7 6
20×10 1st quality ditto	13 0 0	18×10 ditto	13 5 0
20×12 ditto	13 15 0	16×8 ditto	10 5 0
16×8 ditto	7 5 0	20×10 permanent green	11 12 6
22×10 best blue Portmadoc	12 12 6	18×10 ditto	9 12 6
16×8 ditto	6 12 6	16×8 ditto	6 12 6

TILES.

At Railway Depôt.

	s. d.		s. d.
Best plain red roofing (per 1000)	42 0	Best "Hartshill" brand, plain sand-faced (per 1000) ...	45 0
Hip and Valley (per doz.)	3 7	Do. pressed (per 1000)	42 6
Best Broseley (per 1000)	50 0	Do. Ornamental (per 1000)	47 6
Do. Ornamental (per 1000)	52 6	Hip (per doz.)...	4 0
Hip and Valley (per doz.)	4 0	Valley (per doz.)	3 6
Best Buabon red, brown, or brindled (Edw'ds) (per 1000)	57 6	Staffords. (Hanley) Reds or Brindled (per 1000)	42 6
Do. Ornamental (per 1000)	60 0	Hand-made sand-faced (per 1000)	45 0
Hip (per doz.)...	4 0	Hip (per doz.)...	4 0
Valley (per doz.)	3 0	Valley (per doz.)	3 6

WOOD.

BUILDING WOOD.	At per standard. £ s. d.		£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 0 0	...	15 10 0
Deals: best 3 by 9	13 10 0	...	14 10 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11 10 0	...	12 10 0
Battens: best 2½ by 6 and 3 by 6...	0 10 0		less than 7 in. and 8 in.
Deals: seconds	1 0 0		less than best.
Battens: seconds	0 10 0		" "
2 in. by in. and 2 in. by 6 in. ...	9 10 0	...	10 10 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	...	10 0 0

Foreign Sawn Boards—

1 in. and 1¼ in. by 7 in.	0 10 0		more than battens.
¾ in.	1 0 0		"
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 5 0 0	...	5 10 0
Seconds	4 10 0	...	5 0 0
Small timber (8 in. to 10 in.) ...	3 17 6	...	4 0 0
Small timber (6 in. to 8 in.).....	3 5 0	...	3 10 0
Swedish balks	2 12 6	...	3 0 0
Pitch-pine timber (30 ft. average)	5 5 0	...	6 0 0

JOINERS' WOOD.	At per standard. £ s. d.		£ s. d.
White Sea: first yellow deals, 3 in. by 11 in.	24 10 0	...	25 10 0
3 in. by 9 in.	22 10 0	...	23 10 0
Battens, 2½ in. and 3 in. by 7 in.	17 0 0	...	18 0 0
Second yellow deals, 3in. by 11in.	19 0 0	...	20 0 0
" " 3 in. by 9 in.	18 0 0	...	19 10 0
Battens, 2½ in. and 3in. by 7 in.	14 0 0	...	15 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14 0 0	...	15 0 0
Battens, 2½ in. and 3 in. by 7 in.	11 10 0	...	12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21 10 0	...	22 10 0
Do. 3 in. by 9 in.	18 10 0	...	19 10 0
Battens	14 0 0	...	15 0 0
Second yellow deals, 3 in. by 11 in	16 10 0	...	17 10 0
Do. 3 in. by 9 in.	15 0 0	...	16 0 0
Battens	11 10 0	...	12 10 0
Third yellow deals, 3in. by 11 in.	13 10 0	...	14 10 0
Do. 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
White Sea and Petersburg—			
First white deals, 3 in. by 11 in.	15 0 0	...	16 0 0
" " 3 in. by 9 in.	14 0 0	...	14 10 0
Battens	11 10 0	...	12 10 0
Second white deals, 3in. by 11in.	14 0 0	...	15 0 0
" " 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
Pitch-pine: deals	19 0 0	...	21 0 0
Under 2 in. thick extra.....	0 10 0	...	1 0 0
Yellow Pine—First, regular sizes	18 0 0		upwards.
Oddments	32 0 0		"
Seconds, regular sizes	33 0 0		"
Oddments	28 0 0		"
Kauri Pine—Planks per ft. cube.	0 4 6	...	0 6 0
Danzig and Stettin Oak Logs—			
Large, per ft. cube	0 3 0	...	0 3 9
Small " "	0 2 6	...	0 2 6
Wainscot Oak Logs, per ft. cube	0 6 6	...	0 8 0

JOINERS' WOOD (*Continued*).	£ s. d.		£ s. d.
Dry Wainscot Oak, per ft. sup. as inch	0 0 10	...	0 1 0
¾ in. do. do.	0 0 8½	...	—
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch..	0 0 10	...	0 1 1
Selected, Figury, per ft. super. as inch	0 1 6	...	0 2 6
Dry Walnut, American, per ft. super. as inch	0 0 10	...	0 1 0
Teak, per load	18 0 0	...	22 0 0
American Whitewood planks, per ft. cube	0 5 0	...	0 6 0

Prepared Flooring, etc.—	Per square.		
1 in. by 7 in. yellow, planed and shot	0 13 6	...	0 17 0
1 in. by 7 in. yellow, planed and matched	0 14 0	...	0 18 0
1¼ in. by 7 in. yellow, planed and matched	0 16 0	...	1 0 0
1 in. by 7 in. white, planed and shot	0 12 0	...	0 14 6
1 in. by 7 in. white, planed and matched	0 12 6	...	0 15 0
1¼ in. by 7 in. white, planed and matched	0 15 0	...	0 16 6
¾ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0 11 0	...	0 13 6
1 in. by 7 in. " "	0 14 0	...	0 18 6
¾ in. by 7 in. white " "	0 10 0	...	0 11 6
1 in. by 7 in. " "	0 12 9	...	0 15 0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.		£ s. d.
Rolled Steel Joists, ordinary sections	7 10 0	...	8 0 0
Compound Girders, ordinary sections	9 10 0	...	10 0 0
Steel Compound Stanchions	11 0 0	...	12 0 0
Angles, Tees, and Channels, ordinary sections	9 10 0	...	10 0 0
Flitch Plates	9 10 0	...	9 10 0
Cast Iron Columns & Stanchions, including ordinary patterns ...	7 10 0	...	8 10 0

METALS.

IRON—	Per ton, in London. £ s. d.		£ s. d.
Common Bars	9 0 0	...	9 10 0
Staffordshire Crown Bars, good merchant quality	9 5 0	...	9 15 0
Staffordshire "Marked Bars"	11 0 0	...	—
Mild Steel Bars	9 5 0	...	9 15 0
Hoop Iron, basis price.....	10 0 0	...	—
" " Galvanised.....	17 10 0	...	—

(*And upwards, according to size and gauge.)

Sheet Iron Black—			
Ordinary sizes to 20 g.	10 5 0	...	—
" " 24 g.	11 5 0	...	—
" " 26 g.	12 15 0	...	—

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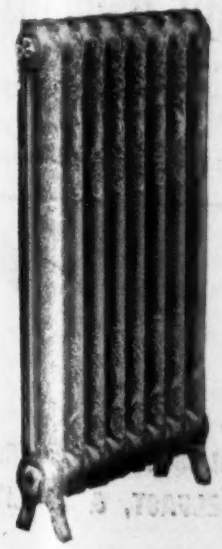

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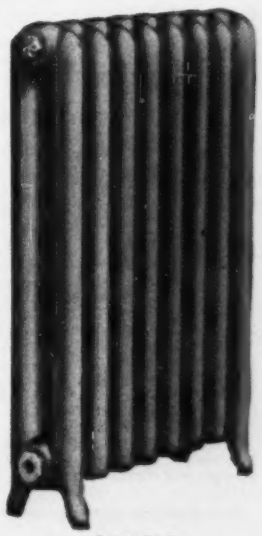

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WORKS: HULL, Yorks.

Agents carrying Stocks: BAXENDALE & CO., Ltd., Miller Street Works, MANCHESTER. WILLIAM MACLEOD & CO., 60, 62, & 64, Robertson Street, GLASGOW.

METALS (Continued).

IRON (Continued)—	Per ton, in London. £ s. d.
Sheet Iron, Galvanised, flat, ordinary quality—	
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 10 0
Ordinary sizes to 22 g. and 24 g.	16 0 0
" " 26 g.	17 0 0
Sheet Iron, Galvanised, flat, best quality—	
Ordinary sizes to 20 g.	18 10 0
" " 22 g. and 24 g.	19 0 0
" " 26 g.	20 10 0
Galvanised Corrugated Sheets—	
Ordinary sizes, 6ft. to 8ft. 20 g.	15 0 0
" " 22 g. and 24 g.	15 5 0
" " 26 g.	16 15 0
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12 10 0
Best Soft Steel Sheets, 2 g. & 24 g.	13 10 0
" " " 26 g.	15 10 0
Cut Nails, 3 in. to 6 in.	11 0 0 .. 11 10 0
(Under 3 in., usual trade extras.)	

LEAD, &c.

	£ s. d.
LEAD—Sheet, English, 4lb. and up	23 7 6
Pipe in coils	23 17 6
Soil pipe	26 17 6
Compo pipe	26 17 6
ZINC—Sheet—	In casks of 10 cwt.
Vielle Montagne	33 15 0
Silesian	33 10 0
Zinc, in bundles, 1s. per cwt. extra.	
COPPER—	
Strong Sheet per lb.	0 1 0
Thin "	0 1 1
Copper nails "	0 0 10
Copper wire "	0 0 10
BRASS—	
Strong Sheet "	0 0 11
Thin "	0 1 0
TIN—English Ingots "	0 2 0
SOLDER—Plumbers' "	0 0 9½
Tinmen's "	0 1 0½
Blowpipe "	0 1 2½

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.*

Per Ft., Delivered.

15 oz. thirds	2½d.	26 oz. fourths	3½d.
" fourths	1½d.	32 oz. thirds	5d.
21 oz. thirds	3½d.	" fourths	4½d.
" fourths	2½d.	Fluted Sheet, 15 oz.	3½d.
26 oz. thirds	4d.	" 21 oz.	4½d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.*

Per Ft., Delivered.

⅛	Rolled plate 2½d.	Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	3½d.
⅛	Rough rolled and rough cast plate 2½d.		
¼	Rough rolled and rough cast plate 3d.	Ditto, tinted	5d.

* Not less than two crates.

OILS, &c.		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 2 11
" " " in barrels	"	0 3 0
" " " in drums	"	0 3 2
Boiled " " in barrels	"	0 3 2
" " " in drums	"	0 3 5
Turpentine in barrels	"	0 2 9
" in drums	"	0 2 11
Genuine Ground English White Lead,	per ton	30 0 0
Red Lead, Dry	"	26 10 0
Best Linseed Oil Putty	per cwt.	0 10 6
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.	Per gallon. £ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 6 p.m. *on Wednesday.* [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100l. unless in some exceptional cases and for special reasons.]

*** Denotes *accepted.* † Denotes *provisionally accepted.***

CAMBERLEY.—For the erection of a Wesleyan Methodist church at Camberley, for the trustees. Messrs. Gordon & Gunton, FF.R.I.B.A., Finsbury House, Blomfield-street, London, E.C., and Mr. A. H. Dungay, M.S.A., Alpha-chambers, Alexandra-road, Farnborough, Hants, architects. Quantities by Mr. A. H. Dungay:—

	Tender A.‡	Tender B.§
Spear & King	£3,180 0 0	£2,580 0 0
J. Crockerell	2,998 0 0	—
Crosby & Co.	2,989 0 0	—
J. B. Seward	2,988 0 0	2,556 0 0
Turner & Kersley	2,980 4 0	—
Martin, Wells, & Co.	2,962 0 0	2,440 0 0
F. J. Privett	2,960 0 0	2,451 0 0
A. Butler	2,947 0 0	—
Bunning & Fitton Adams	2,937 0 0	2,397 0 0
W. Watson	2,859 0 0	2,423 0 0
Jones Bros.	2,673 10 8	2,250 19 9
E. C. Hughes	2,687 0 0	2,253 0 0
G. Kemp & Co.	2,739 0 0	2,239 0 0
W. Wells King, Camberley	2,824 9 6	*2,084 15 5

‡ First tender. § Revised tender for reduced scheme.

DEAL.—For enlargement of schools in North Wall-road, for the Education Authority. Mr. C. L. Crowther, architect, Deal:—

C. J. Howland	£1,185	G. Browning	£948
E. J. Bowles	1,015	Hayward & Paramor	929
E. Trevers	997	G. B. Cottew	920
G. Lewis & Son	939	G. H. Denne & Son	916
Turner & Watts	934	T. T. Denne, Walmer*	910

DEVIZES.—For erecting a mortuary at the Workhouse, for the Guardians. Mr. A. J. Randell, architect, Devizes:—

F. Rendell & Sons	£177 10	W. E. Chivers & Sons*	£168 0
H. Ash	176 0		
G. Offer	173 0		

[All of Devizes.]

LEICESTER.—For the erection of house, Letchworth-road, Western Park, Leicester, for Mr. J. S. Coltman. Mr. H. Bland, surveyor, 37, Danes Hill-road, Leicester:—

H. W. Lea	£920 0	J. Cole & Son	£739 0
Bowles & Son	821 0	J. T. Richardson	734 18
G. A. Phipps	752 0	W. Potter, Blaby*	730 0

LEICESTER.—For the erection of house, Letchworth-road, Western Park, Leicester, for Mr. Henry Hancock. Mr. H. Bland, surveyor, 37, Danes Hill-road, Leicester:—

Bowles & Son	£689	Richardson	£654
Bradford	687	J. Cole & Sons	651
Haskard, Rudkin, & Beck	675	G. A. Phipps	647
		W. Potter, Blaby*	615

[All the rest of Leicester.]

SHEPHERD'S BUSH.—For new mission hall, Becklow-road, Shepherd's Bush. Messrs. Prickett & Ellis, architects, 57, Chancery-lane, London, W.C.:—

Staines & Co.	£8,266	Patman & Fotheringham	£7,571
J. Carmichael	8,099	W. G. Chapman	7,109
Godson & Son	7,950		
W. Brown & Sons	7,695		

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